

MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

VOL. XV. No. 13.
WEEKLY.

BALTIMORE, MAY 4, 1889

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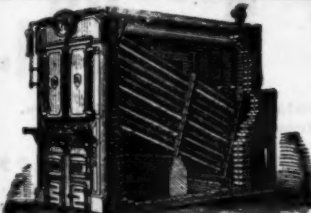


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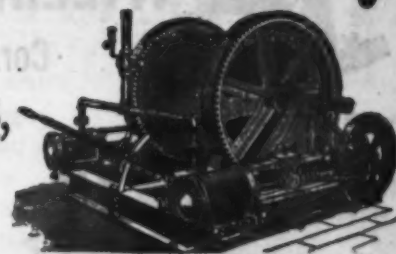
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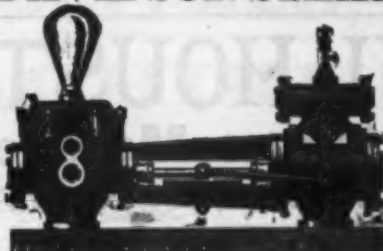
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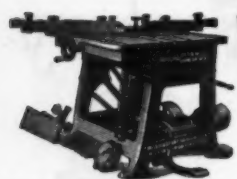
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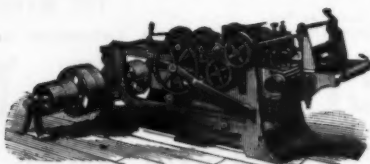
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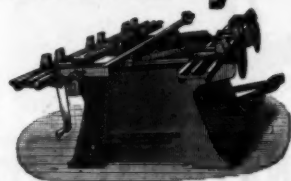
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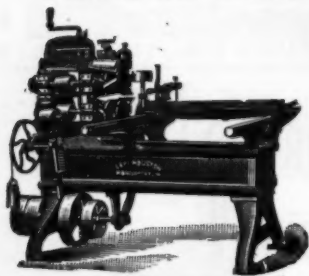
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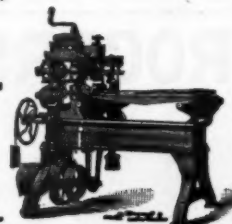
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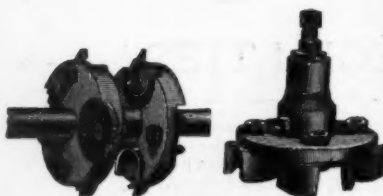
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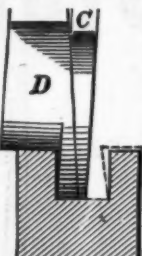
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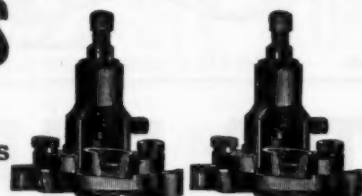


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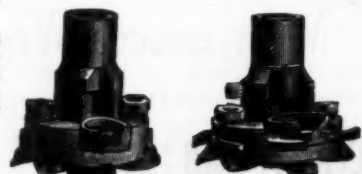
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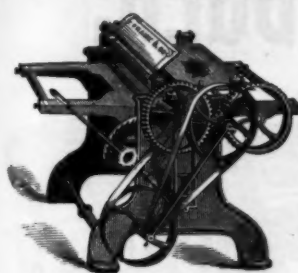
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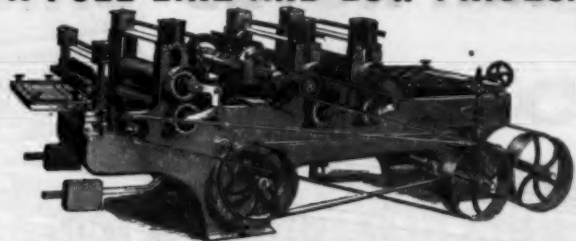
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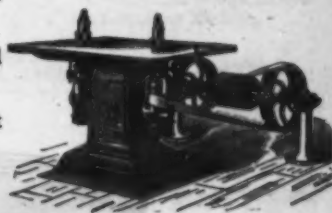


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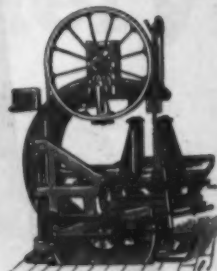
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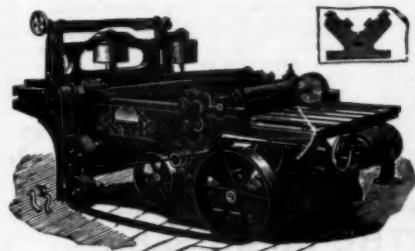
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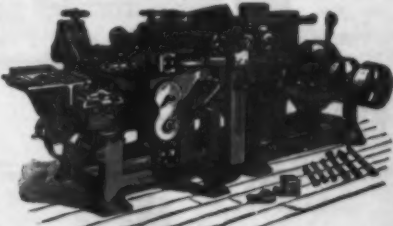
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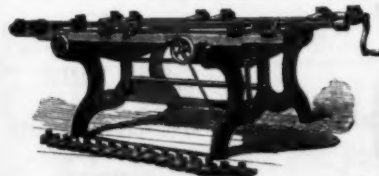
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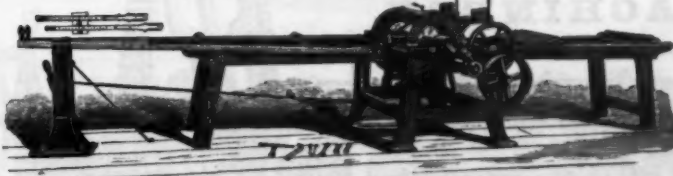
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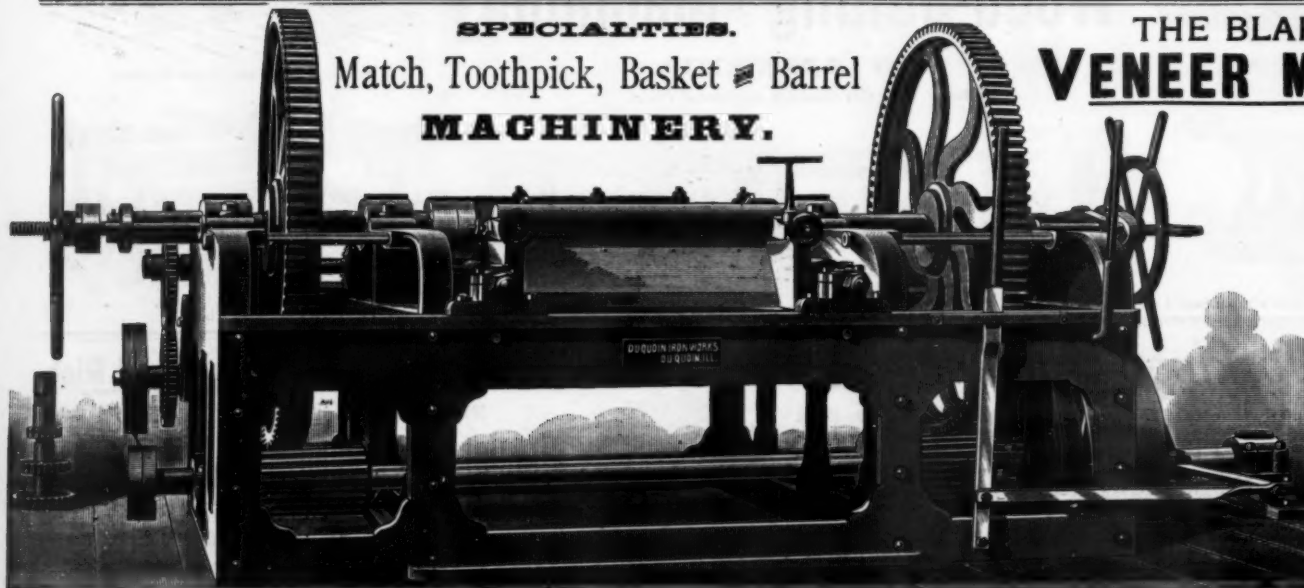
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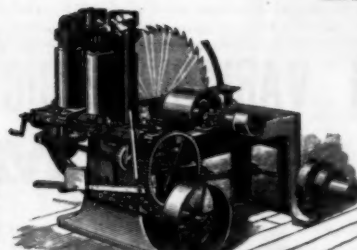
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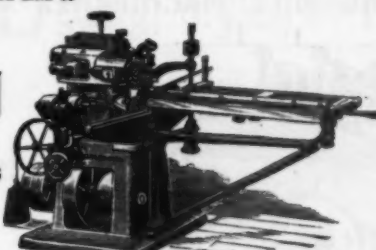
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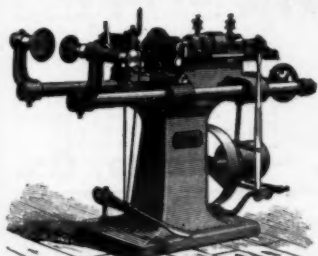


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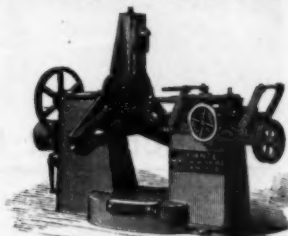
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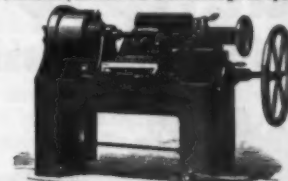
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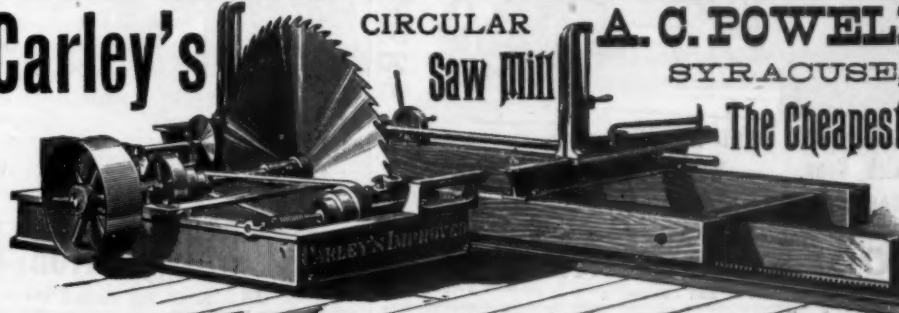
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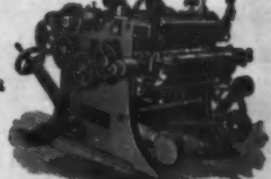
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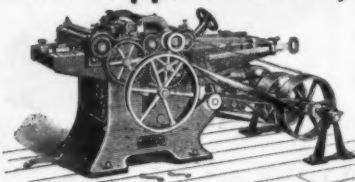


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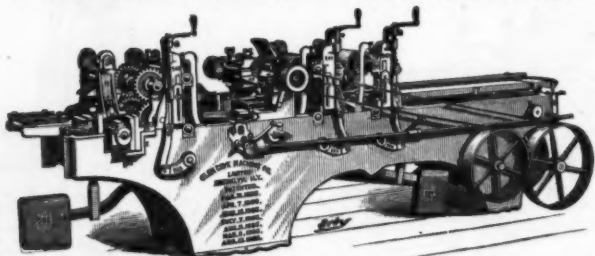
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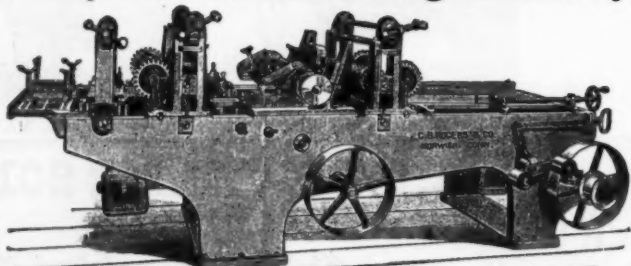
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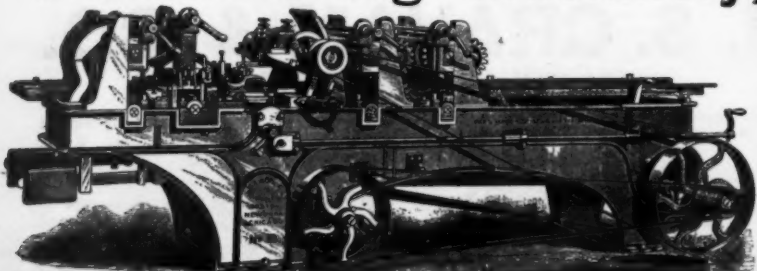
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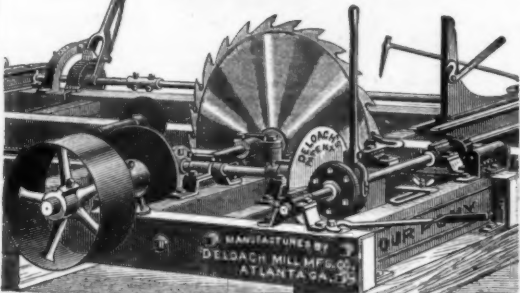
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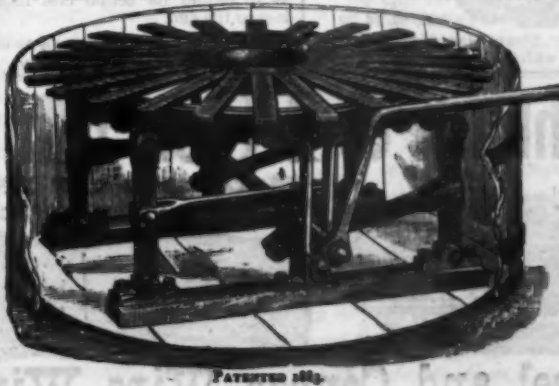
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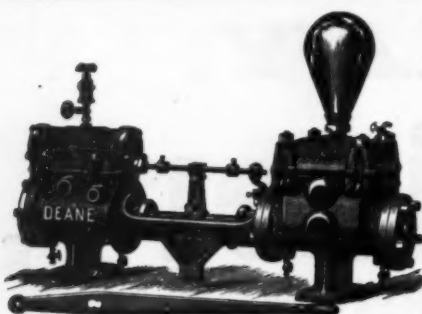
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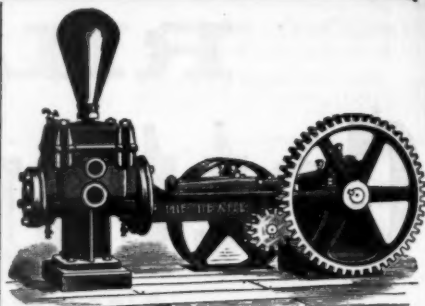
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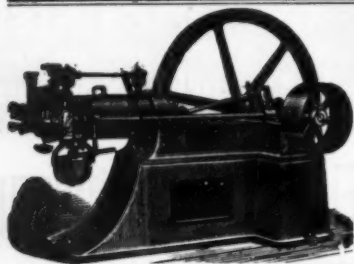
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Resistance to great pressure.
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Manufacturers' Record.

PUBLISHED EVERY SATURDAY BY THE
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WM. H. EDMONDS, BUSINESS MANAGER.

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NEW YORK OFFICE, - - 38 Cortlandt Street.

THOMAS P. GRANT, Southern Staff Correspondent.
Headquarters at FLORENCE, ALA.

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BALTIMORE, MAY 4 1899

The South at the Centennial.

With impressive pomp and ceremony the American people have this week celebrated the beginning of the Republic, the inauguration of its first president and the progress of a century of national life. New York was the gracious host, the nation the guest. No section was more deeply interested in this sublime occasion than the South. No people joined more heartily in its commemoration. Their officials, their troops and their private citizens were present in large numbers to testify, by their enthusiastic participation in the celebration, to the fraternity, the unity and the prosperity of the United States. In so doing they were consciously witnessing to the blessings of constitutional liberty, and to "the surpassing merit and quenchless vitality of our institutions." They, with their fellow citizens of all other sections, joyfully celebrated what the New York Sun eloquently described as "a political success by the wise deemed impossible and even by the optimist undreamed of; it is an institutional triumph without precedent or parallel; it is the immense accomplishment of the last hundred years; it is the no less splendid possibilities of the new century; it is the Union, tried by fire, yet intact and indestructible." We congratulate the South at large on the splendid form in which it manifested its love and devotion to the Union, and on the grand impression made on its fellow-countrymen. It was a glorious opportunity gloriously improved, and the story of it will be carried to all sections, and will tell most favorably and effectively upon the South's growing prosperity.

ENGLISH capitalists continue to gather in the good things in the way of Southern timber land, the latest big purchase being 330,000 acres of pine land in Florida and Alabama, and the extensive saw mill plants of Geo. W. Robinson & Co. and the Muscogee Lumber Co. The negotiations, which have culminated in this big sale, were reported in the MANUFACTURERS' RECORD some months ago as in progress. The price paid is reported at £250,000, or about \$1,250,000.

Our Healthful Southern Climate.

"We cannot go South to live. Malaria and yellow fever prevail there. It's a very nice place to spend the late winter and early spring months but not the country to live in all the year."

These and such as these are the false ideas of many Northern people. We call them false ideas because they are just that and nothing more. As a matter of fact there is more malaria in New England, the Middle States and the West than there is in the whole South. Yellow fever reaches some unprotected places and creates fearful mortality and yet after a careful comparison of statistics running through the last fifty years, we are convinced that more people died in New England from that dread disease—consumption—during that time than the total number of those in the South who succumbed to the yellow fever. More than this, "Yellow Jack" is a preventable disease, while consumption is usually so insidious in its approaches that its victims are near death's door before they realize that they are beyond medical aid. Finally, yellow fever only comes at long intervals and can be prevented from coming at all, while consumption and the several diseases akin to it are always present in the North and secure their victims with almost mathematical regularity.

We assert and we are able to prove that the South as a whole is the most healthy section of the United States. We cannot give space here for all the data that have led us to this conclusion, but are content with a single illustration.

What month in the North gives more employment to undertakers than March? It has become proverbial there that March is the deadly month. In opposition to this acknowledged condition we set the following statistics, preceding them with a few words of information. North Carolina like most Southern States has a board of health. Its members are physicians of the highest standing and reputation. These gentlemen make monthly reports to their secretary, giving concise and most accurate reports of the sanitary condition of their respective counties. These statistics are published in a monthly bulletin for the information of the people. There is no thought in the State of sending it outside the commonwealth. It is an honestly accurate statement of the health conditions of every county for the preceding month. It goes to all the doctors and county authorities and enables them to act in concert against the spread of epidemic diseases among men, beasts and fowls.

We have now before us Bulletin of the North Carolina Board of Health, Vol. IV No. 1, date April 1st. It gives the statistics for the month of March and also on its last page it has

special reports from twenty-three of its most populous cities and towns. It is to these that we invite special attention. Their population is 110,300, nearly equally divided between white and colored people. The annual death rate in these towns and cities is 14.4-10 per cent. of the population. The number of deaths in March was 141; of which 36 were children under five years of age. This is just one death in every 782 of the population. But another thing should be taken into account; the colored citizens of these towns and cities number 55,078, or nearly one-half. The death rate with that race, because of their mode of life, is greatly in excess of the white mortality. Estimating at the lowest possible ratio of difference between the two races these statistics show that in the "deadly month of March" the mortality among the white people of these twenty-three towns was not exceeding one in every 900 of population.

Is there any place in the North or the West that can show so clean a bill of health? If there is it has not shown up.

But there is one other thing that must be taken into account to arrive at a full understanding of these official records. Three fourths of these towns and cities lie within what Northern people erroneously suppose to be the malarial zone of the South. They are near the ocean or the sounds. The land is comparatively flat. There are swamps and marshes in their immediate vicinity. Their populations are the most dense of any in the State. The people have not to any extent adopted modern sanitary ideas and precautions. Yet in spite of these neglects the mortality from all causes is very low.

We believe that other States of the South can show equally good records as a whole. We cite North Carolina as an illustration simply because the official record not intended for Northern circulation is before us.

Who, with such data as these before him, can truthfully say that the South has any other than an all-the-year round healthful climate?

A NOTEWORTHY event in our maritime history occurred on Wednesday last when the immense dock of the Chesapeake Dry Dock & Construction Co. was opened at Newport News, Va. The dock is the largest in this country, being 600 feet in length, and was built by Simpson & Co., and required two years for its construction. Its first use was the successful docking of the Puritan, the largest of the monitors, which was accomplished with ease. The fact that Virginia now possesses the largest dry dock in the country, and that a great iron ship-building plant is being constructed there, taken in connection with the stores of coal, iron and timber within ready reach of Newport News, would seem to offer

extraordinary inducements for that place becoming an important ship-building point. This is the first iron shipyard south of Baltimore, and its construction marks, we believe, the beginning of a new and great industry for the whole South.

Bessemer Ores in Texas.

Verily Texas' long expected boom is on, and on with a force that is irresistible. The tremendous momentum given to industrial progress in the State by Mr. Rice's New England party's investments and projected enterprises at Denison is being accelerated by other workers in the same direction. Col. Henry Exall, the foremost man of Dallas, and a man who enjoys as much prestige for the successful carrying out of all his undertakings as any in Texas, states in a letter to the editor of the MANUFACTURERS' RECORD that he is now in New York for the purpose of interesting capital in the development of the properties of the Llano Improvement & Furnace Co., whose Bessemer ores will prove a powerful factor in making Denison a manufacturing metropolis. Analyses show these ores to run from 65 to 70 per cent. metallic iron, with phosphorus as low as from .001 to .01 per cent. These remarkable ores have frequently been mentioned in the MANUFACTURERS' RECORD. Their development on a large scale by the Llano Improvement & Furnace Co. will mark a new era in the industrial history not of Texas only, but of the entire country, for the reports of the highest authorities indicate that Llano will soon take rank with the Lake Superior region for the production of Bessemer ores. Mr. Geo. M. Wakefield, of Milwaukee, who has been closely identified with the Bessemer ore developments of the Lake Superior region, wrote to the MANUFACTURERS' RECORD a year or more ago a few lines telling of the discovery of this remarkable Bessemer ore field and its extent. Mr. Wakefield predicts that with three years of mining this territory will produce without trouble 4,000,000 tons per year. Its development means that Texas is to become an important iron and steel producer, and plans are even now on foot looking to the early investment of some millions of dollars in several great enterprises, backed by some of the foremost business men of the country. Analyses of these ores, made by Carnegie Bros. & Co., show the following results:

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
Silica.....	2.990	3.090	0.990	1.590	6.790
Iron.....	68.100	67.850	68.900	67.500	64.400
Phosphorus..	0.081	0.011	0.007	0.005	0.003

	Silica.	Phosphorus.
Iron.....	.45	.008
71.15	.45	.008
71.87	.44	.008
70.16	.19	.001
65.97	3.04	.001

If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$4.00 a year.

What Southern Development Has Done for the Machinery Business.

The development of the South, even when connected with some land speculation, as it has at times been, has proved of greater advantage to the machinery business of the whole country than is generally understood. The South has virtually been for the last five years a foreign market for the surplus machinery of the North and West, and but for this there would have been serious stagnation in this business. Even if any particular machinery maker does not sell in the South, yet the growth of that section has proved of great value to him, because it has lessened the competition which he would have had if his rivals in the same line did not find a market in this section for a part of their production.

Every new town started in the South should be hailed with delight by Northern and Western machinery manufacturers, because it simply creates a new demand for their goods. Whatever tends to attract capital into the founding of towns and the building up of industrial centers, such as Florence, Fort Payne, Buena Vista and dozens of other places only recently projected or pushed forward from old sleepy villages to centers of manufacturing activity, is a blessing to the machinery trade of the whole country.

While the South is rapidly increasing its manufactures, yet for years it must largely draw its machinery from the North and West, and its rapid industrial progress is of greater value to these sections than if the best foreign markets in the world were given over exclusively to the product of American machine shops. Millions, yes, tens of millions of dollars are annually going North and West for every line of machinery, and every new town that the MANUFACTURERS' RECORD announces, as one after another is started, is of incalculable value to the machinery and mill supply trade of the country. The MANUFACTURERS' RECORD can do the machinery interests of the country no greater service than to push forward the work of development in this section, the founding of new towns and the stimulation of old ones to new activity in manufacturing matters. It is in many respects a "medium of communication" which has no counterpart. While making known the vast possibilities of the South and its magical growth, thus proving of great value to that section, it at the same time opens to the enterprise and capital of the North and West the finest field for investment and work in the world, thus mutually benefiting all sections and drawing them into closer union.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.

The Freight Question Again.

The MANUFACTURERS' RECORD recently gave some comparative rates of freight showing that Southern furnaces were paying a higher rate per ton on pig iron to many leading points than the Pittsburgh furnaces, notwithstanding the statements of Mr. Carnegie to the contrary. Investigation shows that on finished iron the South is placed at the same disadvantage as illustrated by the following comparison:

TO	FROM PITTSBURGH.			FROM YOUNGSTOWN.			FROM BIRMINGHAM.		
	Miles.	Rate.	Cents per ton.	Miles.	Rate.	Cents per ton.	Miles.	Rate.	Cents per ton.
Chicago.....	468	.15	0.64	493	.13	0.61	649	.14	0.74
Kansas City.....	808	.38 1/2	0.85	822	.36 1/2	0.82	788	.33 1/2	0.90
San Francisco.....	3,041	1.15	0.75	2,996	1.15	0.76	2,843	1.15	0.89
Los Angeles.....	2,701	1.15	0.85	2,656	1.15	0.86	2,581	1.15	0.97

The local business of the Alabama mills is nominal, and to market their products they have to seek the markets of the West; whereas, the local business of the Pennsylvania mills is very heavy, or in other words they have a home market for their product, which, as is well known, gives them more remunerative figures for their goods than a competitive market. It will be seen that Pittsburgh and Youngstown have a very much lower rate of freight on bar iron to such prominent places as Chicago, Kansas City, etc., than Birmingham. Youngstown pays to Chicago only 0.61 cents, and Pittsburgh 0.64, while Birmingham is forced to pay 0.74. To other points the difference is fully as great. We appreciate the fact that Southern railroads have given much encouragement to the manufacturing interests, and that the volume of their traffic is less than Northern roads, but these figures seem to show that there is room for improvement. The subject is worthy of careful investigation.

MESSRS DUMEE, SON & CO., No. 236 Chestnut street, Philadelphia, have organized a limited excursion, composed entirely of sleepers, in connection with the Baltimore & Ohio Railroad and East Tennessee, Virginia & Georgia system, at a very low rate, to go and return without change, stopping one day at each of the following Southern cities: Chattanooga, Tenn., Rome, Ga., Bluffton, Talladega, Calera, Anniston and Birmingham, Ala.; leaving Philadelphia on the 15th of May. For information or to secure berths apply to them at once.

Reform the Mail Service.

Nothing better illustrates the growth and progress of the United States during the past century than the improvements in mail transportation and the increase in the postal service. People living in the populous Eastern cities and along the great fast mail routes have little to complain of, since pretty nearly all the resources of transportation are taxed for their accommodation, while liberal sums are expended for their benefit. But there are wide areas of territory, South and West, which would be content if they could only be assured of prompt and regular service at moderate speed.

Many important cities in the South, along the seaboard and in the interior, have wretched mail facilities, if indeed, they can be termed facilities. Correspondence of the highest importance, which should reach Baltimore and cities to the Northward on a given day, is frequently delayed a day or a day and a-half, and sometimes two days, through circumstances which would rarely intervene, did the government take the proper measures to secure equal justice to all sections in the matter of mail service. It has only been within a few years past that Baltimore has received anything like fair treatment on this score, and other Southern cities have had little or no attention paid to their claims.

It is to be hoped that Mr. Wanamaker, the new Postmaster-General, will bring his remarkable organizing ability to bear upon this important branch of the Postoffice Department. What is wanted is a radical revolution in methods of mail transportation. The government is abundantly able to pay for quick and prompt service wherever it would be justified. The day for cheese-paring economy has passed. The people want prompt and speedy mail service, and to the business men of the country it is a matter of supreme importance.

Cheaper Postage.

It is said to be the ambition of the present Postmaster-General to have one cent letter postage adopted during his term of office. This is an ambition which the business public and the newspaper fraternity will back him in with unanimity and energy. Mr. Wanamaker just let us know when you want a stirring appeal made to egg Congress on to this point, and we will rack our brain to make it one so propulsive in its effect that not a Congressman will escape being landed in the net. Let us have one-cent letter postage by all means, and one cent a hundred pounds on newspaper mail. Then this will be a free country, sure.—Western Tobacco Journal.

If "one cent a hundred pounds on newspapers" can't be secured, we will be content with one cent on fifty pounds. A reduction on newspaper postage would be an advance step, which would prove a wise move for the government, and we would be glad to see Mr. Wanamaker advocate it. Let us have cheaper postage Mr. Postmaster.

Where Brains Would Pay.

Monied men at the North who put their capital into Southern enterprises are somewhat prone to imagine that they confer a favor, so to speak, upon this section by displaying faith in its resources and energy. While it cannot be disputed that much of the South's marvelous development is due to the investment of capital from the North, it is to be insisted upon and never lost sight of that the main motive factor in Southern progress has been the courage, confidence and push of our young men, who are persuaded that money can be made at home by anything like good management. One needs but to read the average country newspaper in any of the Southern States to perceive that the era of progress has dawned in the South, and that the measure of its growth in material wealth is simply beyond calculation. But while there is abundant means in well nigh every Southern city and the larger towns for the establishment of paying industries, what is chiefly lacking is men with sufficient comprehensive knowledge of factories, mills, etc., and their practical management to put such establishments on a safe basis at their start.

Many such men are working at the North for small incomes who might win prominence and fortune in the South, if the proper conditions were once established. A good method for securing such conditions would be the organizing of improvement companies, whether by the co-operative system or otherwise. These established, skilled mechanics or managers from the North could be invited to take charge of the projected enterprises. They might even be given more or less of the company's stock as an inducement. Management is half the work in any project, and skilled men who could assure the wise conduct of industrial ventures are wanted all over the South. The difficulty would be to communicate readily with men of this character, but the publication of projected enterprises at all promising in their nature would attract the attention of men capable of giving them proper direction. It would be preferable, however, that such managers should be men with means sufficient to put capital of their own into the particular venture, as their zeal and prudence would thus be the better assured.

Air as Fuel.

The marvels of scientific discovery and mechanical invention crowd upon latter day nineteenth century folk in a manner rivalling the play of kaleidoscopic figures. One accepts, nowadays, what he sees, as his fathers did of old, but, unlike them, he is not prepared to dispute the possibility of anything within the range of conception. One of the most wonderful applications of human reason in employing an essential element of the

universe for human purposes is that described in the last issue of Bradstreet's, by Mr. Lorin Blodgett, a well-known member of the Franklin Institute, of Philadelphia.

This is nothing else than the proposed use of atmospheric air as fuel. Air is mixed with coal gas, as everyone knows, and with hydro-carbon vapors, and the compound when burned generates a much greater heat than if the air were absent. So, too, a powerful air blast is a great economizer in smelting and reducing ores. But the new fuel is the air itself, which in a powerful blast is directed upon an incandescent substance, say coal made white hot, pure carbon or any other materials that can be made to glow. Coal, hydro-carbons or whatnot may be employed to give the initial incandescence, but once the blast strikes the luminous body the utmost intensity of heat is secured, apparently by the combustion of the air, and may be maintained for an indefinite period by merely preserving the incandescence of the surface. And this may be done by a slight manipulation of the surface brought to incandescence, and with some slight renewal of carbonaceous material.

Mr. Blodgett offers as an explanation of this wonderful phenomenon that air, i. e., oxygen and nitrogen (the union of which forms the atmosphere) is pyrogen, i. e., fire generator. And so it would really appear. At any rate, the phenomenon treated by Mr. Blodgett is to be practically availed of in a very short time. A Philadelphia inventor has the credit of its observance, and capitalists are preparing to put it to industrial purposes.

Developments in Texas.

NEW YORK, April 29, 1889.

Editor Manufacturers' Record:

Some weeks ago I wrote a brief note asking to be put in communication with furnace builders; the results that flowed from the publication of which in the MANUFACTURERS' RECORD were highly gratifying.

I am now in New York for the purpose of directing attention of Eastern capital to the magnificent iron deposits of Llano county, Texas, and expect to remain at the 5th Avenue Hotel for the next thirty days.

Enclosed you will find a copy of the prospectus of the Llano Improvement & Furnace Co., which will give you an idea of the progress we are making and of the merits of these ores.

HENRY EXALL.

[The analyses of the ores referred to in Mr. Exall's letter will be found in our editorial columns. Among the enterprises mentioned in the prospectus as to be started at Llano by this company are \$150,000 charcoal furnace; \$50,000 car wheel works; \$50,000 electric plant; \$50,000 water, gas and ice company; \$50,000 hotel; \$100,000 building association and \$50,000 water-power system. The names of the men at the head of this enterprise is sufficient guarantee that these enterprises will be carried out and that on a sound basis. Mr. Henry Exall is one of the most remarkable business men of the country, and his influence alone could build a city. Ed. MANUFACTURERS' RECORD.]

TEXAS.

The Effect of the New England Excursion.

A Rising Boom.

[Editorial Correspondence MANUFACTURERS' RECORD.]

DENISON, TEXAS, April 23, 1889

Some weeks ago, Mr. W. P. Rice, so widely known as the organizer of the Fort Payne movement, told me confidentially that he had in view a certain undertaking of unusual magnitude in Texas, and that he was then arranging to take down to Texas a large party of New England capitalists. The party came down from Boston last week, and I am here in response to an invitation from Mr. Rice to accompany them.

The purpose of this excursion and what the excursionists have done here, will be set forth in detail in a letter from a staff correspondent of the MANUFACTURERS' RECORD. I simply want to call attention to the tremendous import of this movement in its bearing upon the future of Texas.

Probably no man in America, other than Mr. Rice, could have induced these people to come down here on their present mission. Not that there are not other men as persuasive as he, but the fact that of the multitude of enterprises he has inaugurated with New England money, not one has failed; that of the millions of dollars invested under his direction, every dollar has brought forth profitable returns; that every statement he has ever made, no matter how improbable or even impossible it seemed, has been amply substantiated upon investigation. These facts and the confidence born of them, the unquestioning reliance placed upon his representations and upon his judgment, gained for him credence from these New England capitalists even when he subjected their credulity to so great a strain as was involved in the attempt to convince them that Texas has advantages for iron making and general manufacturing as great as its agricultural capabilities. Whatever, though, may have been their impressions of Texas before Mr. Rice brought them here to see for themselves, the large investments they have made here are sufficient evidence that the results of their investigation have been satisfactory.

The visit of these New Englanders will be far-reaching and widespread in its effects. What they shall do here will rapidly develop and build up this immediate section. It is New England money that has made the West what it is, Chicago, Kansas City, Omaha and other Western centers of wealth have grown up on New England capital, supplemented by the energy, industry, perseverance and skill of its owners. The same factors have been put into operation here and the same results will follow.

But not alone in the growth of Denison will this New England invasion of Texas be felt. As an advertisement of the State's mineral resources and industrial possibilities it will have a value beyond estimate. The mere fact that these shrewd, successful Yankees have come to Texas to make money will bring others from the same section for similar undertakings. And such is the confidence in their business acumen and foresight, and so grounded the belief that success always accompanies them, that where New England goes other sections quickly follow. This Denison movement will direct attention to the State. It will lead to a general investigation of its advantages, and investigation will be followed necessarily by industrial development. When the extraordinary quality of the Llano county Bessemer ores and the high grade of the brown ores in other parts of the State become known,

together with the near existence of coking coal, the State will no longer suffer from industrial inactivity.

Texas is a State of progress. Since the date of its admission into the Union it has gone steadily forward. It has never retrograded, and has known no halt in its advancement. Its career has been a continued process of evolution. Texas is incomparably blessed in agricultural resources. Its commercial interests are of far greater importance than the outside world has any conception of. And now to these two elements of prosperity will be added manufactures, the surest and most substantial of the three essentials that form the foundation of national wealth and power. I believe that Texas will, in the next five years, make greater advances in the utilization of its natural wealth than even Alabama has in the last five. This initial step at Denison is but an entering wedge. These excursionists are but the advance guard of an army that will follow them. The two million dollars invested here in the last three days will prove to be but the trickling stream that shall grow into a mighty river, pouring its torrent of wealth into this Empire State.

WILLIAM H. EDMONDS.

The \$20,000 bonds authorized by the last legislature to be issued by Troy for school purposes cannot be disposed of, because the Act provides that they shall not be sold at less than par, and they only bear 6 per cent. interest, which prevents them from being negotiated.

The above clipping refers to Troy, Ala., a prosperous and progressive town, which, it is said, cannot sell its bonds—good, safe ones, too—because they "bear only 6 per cent interest." We venture to say that not an effort has been made to attract the attention of outside capitalists to these bonds. Very frequently Southern towns and cities offer their bonds for sale without taking any steps to advertise them except locally. Only last week a leading banker was in the office of the MANUFACTURERS' RECORD to find out about \$150,000 of bonds which he had heard would be issued by a Southern town, but which have never been advertised except in local papers. A few dollars spent in advertising Southern municipal bonds would often save many hundreds, possibly thousands by attracting greater attention and thus securing more bidders. The same is true in the building of bridges, sewerage-systems water works, the construction of railroads, etc. Competition secures the best work at the lowest prices, and competition can only be obtained by the judicious investment of a little money in advertising. The MANUFACTURERS' RECORD is so widely read throughout the North and West by bankers and capitalists and by contractors of all kinds, that it is an unsurpassed medium for advertisements of this character.

ONE of the liveliest of our weekly exchanges is the Times, of Florence, S. C., and it is published in one of the liveliest towns of the South. Florence's growth would do credit to an Alabama booming town.

Subscribe to the MANUFACTURERS' RECORD.

WISE MEN IN THE EAST

Follow the Star of Texas to Her Gate-way City,

Which is the Natural Meeting Point of Bessemer Ores from Llano and Coking Coals from the Indian Territory,

And which is Destined to be Converted by the Invincible W. P. Rice and His New England Allies into a Magnificent Industrial Metropolis.

A Boom Inaugurated that Will Sweep Over the Lone Star State Like an Old-Time Prairie Fire.

THE FORT PAYNE MIRACLE TO HAVE ITS COUNTERPART AT DENISON.

A Word Concerning Mr. W. P. Rice.

[Special correspondence MANUFACTURERS' RECORD.]

DENISON, TEXAS, April 23, 1889.

Denison is to-day (barring Oklahoma) the most conspicuous place throughout the length and breadth of the great Southwest. Of course by this time all the world knows what has made it so, for the daily papers have been bristling with dispatches concerning the superb vestibuled train, laden with New Englanders, under W. P. Rice's leadership, that started a week ago from the Yankee metropolis bound for Denison, the gateway city of this, the queen of States.

Denison has already made wonderful headway since 1873, when the first house was built, having now a thousand inhabitants for every year of its brief life, but the Denison of to-day is but the sprouting acorn to the mighty oak that she will grow into under the new regime; for within three days from the arrival of those 128 New Englanders some two millions of dollars had been invested in realty and subscribed to build factories at Denison; for every man of the 128 "fell dead in love" with the town and its environments at first sight. But as a matter of fact there was good reason for this speedy infatuation, because while Mr. Rice was gathering the party together away up in New England, his inimitable co-adjutor, Dr. J. M. Ford, was busy collecting samples of the resources that form the basis of Denison's future greatness. These latter were admirably grouped and arranged in the biggest building in the town, forming a collective exhibit that had only to be examined for half an hour to convince the stubbornest unbeliever that money, enterprise and good management alone are necessary in order to make Denison a manufacturing city second to none in all this vast trans-Mississippi empire—a region that is about to throw off the yoke of industrial vassalage and cease paying tribute to distant manufacturers.

The exhibit just referred to contained samples of coal such as few of even the best informed would have thought to be procurable within a thousand miles of Denison, and yet these samples were taken from a field that runs within forty miles of it. The first sight to greet the visitor's eye as he entered this exhibition was a huge lump of "McAlester coal," weighing four thousand pounds. Further on were great heaps of coke made from this same coal, while these coke heaps were flanked by samples of Bessemer ores taken from immense deposits in Llano county, Texas, which analysis proves to equal any in America.

Analyses of both ores and coking coal

will be given in detail under a separate caption.

Hardby were samples of Texas iron, which experts pronounced unsurpassed for making car-wheels; also various kinds of marble, some of the latter showing wondrous combinations of lovely tints and colors. There were likewise exhibits of fine clay and kaolin, sandstone and limestone from quarries near the city and specimens of all the hardwoods and the yellow cotton wood, so abundant hereabout as to make Denison an exceptionally advantageous location for wagon and implement works, and especially furniture factories. This yellow cotton wood is found in enormous quantities, and is said to be far superior to yellow poplar for making the ordinary grades of household furniture.

The exhibit was adorned with agricultural and horticultural products and a wealth of fresh-cut flowers, whose delicious fragrance pervaded the entire building, proving a source of unspeakable gratification to the men who had just come from a country where scarce a leaflet or rosebud had ventured to brave the still bleak winds. This exhibition was the work of a few days, but as has been said, it was eloquent enough to make every thinking man who inspected it feel convinced that Denison was *par excellence* a site for successful industries. There were of course a few speeches giving facts about the location, accessibility and extent of the raw materials displayed.

It so happened that when the vestibuled train arrived, which was in the afternoon, the rain was pouring down, and this prevented the party from seeing the city according to the programme. Therefore they were taken directly to the exhibit. Most of them stayed there till late at night, so great was the interest it aroused. Next morning the clouds were gone and the party were taken in carriages to see the city and its environs. And then a surprising thing was witnessed. Notwithstanding the heavy rain the roads were found to be firm. It seemed that everyone had a preconception that Texas roads after hard rains were bottomless. And so perhaps, they may be in some places, but not in and around this charming gateway city.

And right here a corollary. The rain that greeted the party threatened to "wet blanket" its enthusiasm. But what threatened to prove a curse was converted into a blessing—such is the luck that seems ever to attend all the undertakings of the man who brought these people here. In the first place without the rain it would have been almost impossible in this delicious spring time to have kept our Yankee friends indoors long enough to make that thorough investigation of Dr. Ford's exhibit which, as it turned out, induced so many of them to invest; and in the second place, without the rain they would never have believed that the streets of the town and the suburban roads could stand a hard rain without getting impassably muddy—and this latter discovery suggested the saving of heavy outlays for street paving.

Apropos of the intimation that Mr. W. P. Rice seems to have for an ally that goddess whose smiles at one's nativity are considered preferable to being born with a silver spoon in one's mouth, it occurs to me that while much has been printed concerning his achievements little or nothing has appeared concerning the man himself. In view of the great work he is doing for the South the readers of the MANUFACTURERS' RECORD would no doubt like to hear something about his individuality and his methods. I never saw him till a few weeks ago. He was then at Fort Payne. There were hundreds

of men there all in a fever, some seeking "pointers" on real estate, some seeking "ground floor" admission to one or another of the various corporations then being organized daily, some seeking to start new schemes—but for some purpose or other every mother's son of them seemed to be seeking Mr. Rice. The consequence was he was quizzed and harassed and bored enough to "start the fibers" of an iron man. Enough to make any ordinary man fretful as a porcupine, enough to drive a nervous man raving crazy. But somehow this unfathomable man went through it all without losing his equanimity for a solitary second. Although he had an immense amount of pressing work on hand, preparatory to making this very trip to Denison, yet he managed to give every man who wanted to interview him a few minutes of his time, no matter how uncalled for or preposterous their pretext for taxing his patience. I could see a certain light in his eye showing that he caught the gist of each little speech before it was half concluded and what was still more remarkable he generally gave in less than a dozen words a reply that proved satisfactory even to the propounders of "millions in it" schemes, the weak points or the absolute absurdities of which he seemed as by inspiration to divine and then to make so clear that even Colonel Sellers himself would almost have thanked him for shattering his idols.

The work here at Denison done by this same calm, kindly-mannered leader of men proves not only that "peace hath her victories no less renowned than war," but her generals too. The hourly demands upon his time, all day, all night, were almost inconceivable; the multiplicity of things he had to bear in mind incalculable, yet he never displayed either the slightest irritability, vacillation or confusion of ideas.

He is still a young man not over forty, but a study of his methods brings flashing on my memory many passages from that master piece of Phillip's, one of which with the past tense changed to the present fits the case: "A mind bold, independent and decisive; a will despotic in its dictates, and an energy that distanced expedition marked the outlines of this extraordinary character."

A number of enterprises were organized at Denison and for Denison during the brief stay of this New England party. A land and improvement company was one of them, the capital being \$1,250,000, of which \$800,000 was taken by the visiting capitalists, on which they paid \$400,000 in cold spot cash. The home people and land owners took the rest. The books were opened for this enterprise before some of the party were notified, and it happened that a large number of applicants for stock came in too late. It had all been taken and the books closed. This company took in some 1,600 acres of land in and around the city. No sooner was the deal made than a sale of lots was held, at which hundreds were taken at advanced prices, but on account of lack of time many would-be buyers failed to get in what they wanted. This property in 30 days will doubtless double, for it is now worth ten times more than when this excursion train rolled into the town.

Capital to build a cotton mill with 50,000 spindles was likewise subscribed, and a number of other manufacturing plants determined upon, which will not be announced until the party returns to New England.

A pool of \$150,000 in cash, every cent paid down, was formed to take in property on which options had been secured in advance by Dr. Ford for the benefit of the visitors. So great, however, was the general rush, and so numerous the enterprises broached, that only rumors could be had

of various undertakings that will speedily materialize. However, I have it on the highest authority that the amount of money to go into Denison, for which written contracts were made, exceeds \$2,000,000.

Speaking of rumors, there is an apparently well authenticated rumor afloat that an immense steel plant is an early certainty, the work of which will be to utilize the iron to be made from the Llano county Bessemer ores.

This letter ought not to omit the various entertainments and the prodigal hospitality tendered the visitors by the citizens of Denison, nor should it omit mention of the railroads centering here, nor a description of the lovely environment. However, there will doubtless be much more about Denison in future issues of the MANUFACTURERS' RECORD.

THOMAS P. GRADY.

COKING COAL AND IRON ORE

Within Easy Reach of Denison, Texas.

A Wonderful Showing.

In the special correspondence from Denison, Texas, in this week's MANUFACTURERS' RECORD, reference is made to analyses of the coking coal and Bessemer ore on which the proposed iron and steel industries at that point are mainly predicated. The following are

ANALYSES OF LLANO ORES

made by Carnegie Bros. & Co., of Pittsburgh, Pa.

	No. 1.	No. 2.	No. 3.
Silica.....	2.950	3.050	0.950
Iron.....	68.100	67.250	68.900
Phosphorus.....	0.081	0.012	0.007

The foregoing are not far from an average of the various samples analyzed.

NEW BIRMINGHAM ORES.

Inasmuch as the ores in Cherokee county are accessible to Denison, it is worth while to give in this connection an analysis of them made for John Birkenbine, of Philadelphia. In fact, superior car-wheel iron is now being made from these ores at the Texas penitentiary furnace at Rusk:

	No. 1.	No. 2.	No. 3.
Metallic iron.....	46.55	45.63	45.17
Silica and insoluble.....	17.53	17.67	20.36
Sulphur.....	0.001	0.001	0.001
Phosphorus.....	0.153	0.069	0.082
Water.....	13.09	13.09	15.95

M'ALESTER COKING COAL.

The coal referred to in the subjoined analyses and reports is that which, so soon as the Denison & Wichita Valley Railroad is completed, will be within a haul of about forty miles of Denison. In other words, the coal at the latter locality belongs to the same vein as the McAlester.

ANALYSIS OF M'ALESTER COKE BY U. S. GOVT.

Furnished by H. L. S. Kniffin, Denison, Texas, April 20, 1889:

Moisture.....	3.95
Volatile matter.....	1.900
Carbon.....	83.1400
Ash.....	9.975

Percentage combustible..... 100.

Analysis Chauvenet & Co., St. Louis:

Moisture.....	3.1
Volatile matter.....	2.45
Carbon.....	87.08
Ash.....	10.38

Percentage combustible..... 100.

Superintendent smelter, Chihuahua, Mexico:

Carbon.....	91.
Ash.....	6.96
Volatile matter.....	2.04

Percentage combustible..... 93.04

COMPARATIVE ANALYSES OF COAL.

Trinidad mines, per cent. combustible.....	84.738
El Moro, near Trinidad.....	83.87
Connellsville, Pa.....	94.876
McAlester, near Denison.....	94.18

REPORT FROM SMELTING WORKS OF INTERNATIONAL SMELTING CO.

EL PASO, TEXAS, JANUARY 10, 1889.

McAlester Fuel Co., El Paso, Texas:

Gentlemen—Referring to the qualifica-

tions of your washed coke, it affords me pleasure to be able to say that it is the best and most economical coke we have been able to secure.

We have used general grades of coke, including imported, but I prefer that which you are now producing, styled "washed coke." It burns freely, lights easily, it is hard and strong enough to hold the charges of our 40-ton stacks, it leaves no clinker, or but little, it is void of dust to an unusual extent, and it affords us a saving of 5 per cent. bulk over the cokes used by us.

We have examined it for our general estimates for smelting, and find—

Ash.....	13.7 per cent.
Carbon.....	85.55 "
Sulphur.....	.75 "

Our furnace men prefer it above all other cokes.

(Signed.) C. G. FITZGERALD,
Pres. and Gen. Manager.

REPORTS FROM GAS COMPANIES

'Statement from San Antonio Gas Works, March 23, 1889, as to results obtained from McAlester coal, year ending 1888:

4.14 ft. gas to lb. coal. 18 candle power.

105 purified to lb. lime. 18 candle power.

January 1, 1889, to March 12, 1889:

Jan. 4.38 ft. gas to lb. coal. 18 candle power.

103½ purified to lb. lime. 18 candle power.

February and March:

4.47 ft. gas to lb. coal. 18 candle power.

105½ purified to lb. lime. 18 candle power.

March.

Ft. of gas to lb. of Coal.

Candle Power.

13 4.55 19

14 4.66 19½

15 4.66 19

16 4.12 19

17 4.34 19

18 4.66 19½

19 4.60 19½

20 4.31 19½

21 4.62 19½

22 4.60 19

23 4.74 19

Lime used about same. Coke is of good quality. Sells well. Barely any on hand.

Are now burning tar under one bench of 5's to catch up. We are carbonizing about 11,000 pounds per day, of which 300 pounds each day is jellied cannel, mixed with McAlester, as we find it gives slightly better results than when used as a separate charge. This cannel does not increase the candle power, but does the yield, but does not suit our coke trade, therefore, mix as stated."

Statement from Waco Gas Co Waco, Texas, February 23, 1889.

"Have been using McAlester coal for about 3 years, and our average yield of gas from a ton of 2,000 pounds has been 9,000 cubic feet of gas. It cokes well and we have no trouble in selling our coke for fuel. The gas from a van of coal requires about 50 pounds of unslacked lime to purify it, which is the only purifier we use. We make 16 candle-power gas from the coal alone, without any enricher."

Report from Denison Gas & Coal Co., March 23, 1889:

"Yield for February of cubic feet of gas to pound of McAlester coke was 4.68. Each bushel of lime used purified 8,853 cubic feet of gas. These, of course, are average figures for the month."

OFFICE OF RICHMOND CHEMICAL WORKS,

RICHMOND, VA., April 24, 1889.

Editor Manufacturers' Record:

Please accept our thanks for the notice of our new enterprise, the Richmond Chemical Works, named in a recent number of the MANUFACTURERS' RECORD. It has certainly borne a full harvest of good fruit. We have received letters and illustrated catalogues descriptive of machinery, shafting, &c., required in our construction, from almost every State east of the Mississippi river—all this due to your notice in the construction column of the MANUFACTURERS' RECORD.

RICHMOND CHEMICAL WORKS.

H. W. BOHANON, Dalton, Ga., wants address of parties who use black locust and black walnut timber in the log; also name of parties who use tripoli.

FLORENCE, ALA.

Her Manufacturing Interests.

The Work of a Few Months, Showing Unparalleled Progress and Pointing to a Brilliant Future.

A Brief Sketch of What Is Being Done.

FLORENCE, ALA., May 1, 1889.

Editor Manufacturers' Record:

The question first arising in the mind of the visitor to Florence, before he has had time to familiarize himself with his surroundings, is "Why should Florence outgrow any other beautifully situated river city in the South?" And it is often the first one asked by the hard-headed searcher after facts. Later on, after seeing what Florence really is, the eyes of the questioner answer the query for him, and give him a practical explanation of the reasons for the busy, bustling air of her citizens, the life and activity in every department of business, the new buildings going up in every quarter and the vim and energy which cannot help but impress itself upon him. Instead of the usual "booming" town with its horde of land-sharks and lively real estate agents forever haunting his footsteps, he finds to his surprise that he can venture abroad without fear of being button-holed about corner lots and eligible business sites, and that he can see the city in peace and quiet; for the real estate speculator is not here from the simple fact that Florence is not built upon a land speculation. That scheme has been tried elsewhere and has failed invariably. Business men do not knowingly invest in moonshine or for "sweet charity's sake," but ask for something substantial before putting up their hard-earned dollars.

Let us look at a very few of the industries upon which Florence bases her prosperity, growth and business, leaving out of the question her various natural resources of coal, iron, hardwoods, river transportation and railroad facilities, cotton, limestone, marble, clay, water-powers, health and pure water, and starting from the railroad bridge half a mile long, which spans the majestic Tennessee, enumerate some of the more prominent plants in operation upon its banks.

First, then, the towering smokestacks of the 100 ton North Alabama Furnace lying between the river and the railroad, pronounced by Mr. Hewitt, of New York, unique of its kind in the United States, and prepared to blow in July 1st, when the Florence Northern Railroad will have been completed into the heart of the great ore fields of Wayne county, Tenn. This furnace will employ a large force of men, not counting those engaged in mining, washing and transporting the ore and quarrying the limestone to be used in it, and with this furnace its managers intend to demonstrate that iron can be made cheaper in Alabama than anywhere in the world, and cheaper in Florence than anywhere else in Alabama.

Next comes the Russell Spoke & Handle Co., operating fifteen machines and overwhelmed with orders from all parts of the country.

In close proximity are the Florence Wooden Ware Works, where one sees gum logs unrolled into veneering as rapidly and deftly as an upholsterer's clerk unrolls a piece of wall paper, and at one stroke of the machinery turned out complete butter-dishes at the rate of 75,000 per day.

Next the five huge brick and corrugated iron buildings of the F. H. Foster Manufacturing Co., with which it proposes to start in the manufacture of all kinds of builders' hardware to be used in the construction of anything from a cabin to a palace—though it will need five more

equally as large before its plant is complete. It is owned by Messrs. Foster & Pancoast, formerly of Trenton, N. J., and will employ between 400 and 500 skilled mechanics. Their machinery, shipped by special train from Trenton, is now nearly in position, and they expect to start their works in a few days.

Next comes the W. B. Wood furnace, now in process of construction, to have a capacity of 150 tons and to be modeled upon the same plan as the North Alabama. Within a stone's throw is the handsome 2-story brick building, 47x100 feet, of the Sweetwater Shoe Manufacturing Co., employing twenty hands, but whose capacity will be doubled May 1st, while directly opposite is its duplicate, the Florence Chemical Works, employing a large force and now away behindhand in their orders. Just back of these stands the equally large brick building of the Cotton Gin Manufacturing Co., while we have passed over the huge cotton compress of the Florence Compress, Packet & Ferry Co., which stands between the Foster Works and the woodenware factory.

Across the street from the shoe factory is the foundry of the Florence Stove Manufacturing Co., which has been in active operation since September 15, 1888, and which has built up an enviable and profitable business in a very short time. Just above are the extensive planing, saw mills and lumber yards of the Iowa Land & Lumber Co., employing 50 hands. This company is entirely unable to supply the immense demand for lumber and will be forced to enlarge their capacity. Adjoining are the plants of the Sweetwater Ice Co., with a capacity of five tons daily, and the Florence Steam Laundry, running fifteen machines. At the corner of Aetna street, the Gibson-Hilliard Co. occupies an acre with its handsome brick buildings for the manufacture of single trees, spokes, hubs, plow handles and all sorts of turned goods. Immediately alongside are to be located the works of the W. W. Briscoe Tobacco Manufacturing Co., capital \$30,000, which will employ 50 hands. Further on the Florence Canning Co. has nearly completed the finest canning factory in the South. The main building, of brick, 40x80 feet, will be fitted with the most improved appliances, and the company will employ at least 200 hands.

Next is the Serage & Reynolds Pump Co., employing 50 hands and with a capacity of 300 pumps daily, and the Geo. E. Bennie Bucket Factory, of brick, 50x150 feet, with the machinery almost in position, and which will manufacture cedar buckets, pails, tubs, &c. Directly across the railroad is the Florence Suspender Factory, a handsome 35x75 two-story brick building. Immediately above the bucket factory are the shops of the Curry Manufacturing Co., where the wonderful Curry cultivator and cotton chopper is being manufactured, a machine which is destined to revolutionize the cultivation of cotton as completely as the self binder has done the harvesting of the wheat crop. Further on up the railroad are being laid the foundations of three immense buildings, one 100x300 feet and two 100x150 feet, for the Atlanta Wagon Works, upon which work is being pushed forward as rapidly as skill, energy and money can force it. When completed, the day of the Studebaker, the Webster and the Old Hickory wagon will be over, and the South will have no longer to endure the shame of having to send North and West for an article which, by reason of the cheapness and abundance of iron and hardwoods, should be manufactured by itself. Close by, the McAlester Manufacturing Co., capital stock \$50,000, has nearly finished its 50x110 feet jeans and overall factory, located upon the line between the Lauderdale Manufacturing Co.'s lands and those of the Florence Railroad & Improvement Co. They will

employ 60 hands, principally females, for whom a handsome hotel is now under roof upon the property of the Lauderdale Manufacturing Co. and the Railroad Improvement Co. Alongside, and to cover 78,000 square feet of ground, is located a \$400,000 cotton mill, with the most improved machinery, to be started upon within 30 days and to be in operation as soon as possible thereafter, and two other cotton mills, costing \$300,000 each, are also to be erected along the line between the Lauderdale Manufacturing Co. and the Railroad & Improvement Co.

If space permitted we would like to speak at length of the four-story brick Cypress Cotton Mills located on Cypress creek, upon one of the finest water-powers in the South, and which are in the hands of Mr. J. P. Jones, of Philadelphia, and of the manufacture of all sorts of cotton, lace, &c., to be established by Mr. Snape, of Philadelphia, upon the same water power, employing 75 hands, but I have room for nothing more than a mention, and must pass by others without even naming them.

These plants are realities, with real capital, standing on solid ground and not upon perishable paper; are here for business, to be run by business men and for the purpose of making money. I will not speak of the large machine shops and mammoth furniture works on their way here or of the other enterprises rapidly taking form, and which will soon be realities and employing an army of laborers. It suffices to mention what we really have.

When one adds to these the great companies, with their vast capital and brilliant array of talent—the Florence Land, Mining & Manufacturing Co., the Florence Railroad & Improvement Co., the Lauderdale Manufacturing Co., the Cotton & Iron Co., the Florence Investment Co. and the Florence Building Co.—it is no longer a subject for wonder and remark that Florence has so soon taken the position she now occupies, or that she has done so much within so short a time.

Two years ago Florence was a country town with 1,500 inhabitants; to-day she has nearly quadrupled her population, and it requires no prophesy, but only a careful and moderate computation, to say that the first day of May, 1890, will find her with 15,000 souls within her limits and her development only fairly begun.

GOODWIN H. WILLIAMS.

A Growing and Prosperous Virginia Town.

SUFFOLK, VA., April 22, 1889.

Editor Manufacturers' Record:

Your regular correspondent writing from Suffolk, under date of the 8th inst., has given the public a glimpse of Suffolk's industries and the advantages of this point as a manufacturing town. With your permission I will add something to what he has said, hoping that in the near future, through the influence of your paper, devoted to the development of Southern industries, combined with the natural advantages of this location, some of the surplus capital of other localities may find profitable investment here.

In the value of its shipments, Suffolk ranks third among Virginia ports, Richmond and Norfolk alone surpassing it. With the six railroads centering here, and water transportation down the Nansemond river to all outside markets, no city in the State affords superior shipping facilities to all the markets of the country. The town is incorporated with a municipal government, and has grown from a population of less than 1,000 in 1875 to nearly 5,000 at this time. It is the seat of government of Nansemond county, and the trading point for several contiguous counties in the State of North Carolina as well as several in Virginia. During the last

three years the growth of population and of business has been greater than during all the past history of the place, and during that period several new railroads have been built, which have helped greatly the prosperity of the community. Being the center of a vast timber country, saw mills, planing mills, and other wood-working industries have developed rapidly here. But there is room for many other manufacturing enterprises in wood-working and other industries. A furniture factory could secure here abundant supplies of raw material at cheap rates; agricultural implements of all kinds could be made here as profitably as anywhere; cotton factories could secure supplies from the farms almost at their doors, and no better guaranty of success could be desired than is furnished by the mill now in operation here; canning factories can get all needed supplies of fruits and vegetables from the farms in this immediate section, and of oysters and other shell fish from the waters of Nansemond river; broom factories and other smaller industries could be readily supplied from the adjacent country at little or no cost of transportation, while shoe and hat factories could flourish here as well as at any other point. A car factory is one of the industries soon to be inaugurated here. Being on the line of the Norfolk & Western Railroad, with very cheap rates of transportation from the furnaces of the mineral Southwest and from the Pocahontas and other coal fields, iron foundries can be worked here with profit.

The health of Suffolk is as good as that of any point in the State. The town is fifty-eight feet above tide level, with superior natural drainage and with a superior water supply for drinking and other purposes. The climate is of that delightful temperature which best contributes to health, being free from extremes of heat or cold, and here the Northern invalid seeking the summer climate of Florida may stop for a while and fortify his system against the dangers of a too sudden change from one extreme to another. Our people are sociable and welcome the stranger with the cordiality for which Virginians have ever been proverbial. Educational facilities are of a superior class, there being in the town five excellent private schools, besides the public schools. It is scarcely necessary to say that schools for white and colored children are entirely distinct.

The religious denominations represented in the town are the Baptist, Methodist, Christian, Episcopal and Presbyterian. The church buildings have all been recently improved and most of them enlarged. There are two good hotels in the town at present, but a large hotel, with more modern improvements and adapted to the accommodation of persons seeking health, rest or recreation will no doubt be built in the near future, and Suffolk will become more and more a place of winter resort for Northern people. The section of country tributary to Suffolk is one of the best farming sections of the State. While the soil may not be as productive for certain crops as in the famed valley of Virginia, the facilities for reaching the markets of the country, the cheaper rates of transportation, the greater variety of agricultural products, and the longer seasons for growing and maturing crops, make farming here more profitable than in other sections where the soil is naturally richer than ours. On nearly all the farms of this section two crops are taken from the same soil in one season, and sometimes as many as three crops. East of Suffolk, along either bank of the Nansemond river, the farms are chiefly devoted to growing early fruits and vegetables for Northern markets. Shipments of these begin in February and continue through the spring, summer and autumn months.

These lands are highly improved and productive, and command from \$50 to \$100 per acre, according to location. In other parts of the county, good farming lands can be bought at \$5 to \$25 per acre, including farm buildings. With an area of over 800 square miles, and a population of about 20,000, including the town of Suffolk, one can readily understand that there is a great deal of surplus land, which accounts for the low price at which land can be purchased. Two railroads run through or near the farms on the east bank of the Nansemond river, and these, with two steamers on the river, afford very superior shipping facilities. But from any section of the county there is convenient transportation, either by rail or water. On the lands west of Suffolk, the staple crops are corn, cotton, peanuts, potatoes (sweet and Irish) and melons.

For people in search of sport or pleasure, this section offers superior attractions. Foxes, deer, wild turkeys, partridges, squirrels, rabbits and other game are plentiful, and in the season when hunting for them is permitted by law, they afford great sport to hunters. Almost every winter there are sportsmen from other sections of the country who spend weeks here in pursuit of the pleasures of the chase, or with gun and dogs hunting partridges, sora and other birds.

The Dismal Swamp, widely read of, is but little and imperfectly understood by persons at a distance. Tom Moore's "Lake of the Dismal Swamp," and other newspaper articles penned by writers who had no other view of the great swamp than that afforded by a trip down the canal, or from a fishing boat on the bosom of Lake Drummond, give but a slight conception of the character of this great body of land. Contrary to the general impression, the Dismal Swamp is not a pestilence-breeding bed of malaria, but quite the reverse. There is no healthier spot on this continent than in the very heart of the swamp, and malarial and bilious fevers are things unknown in that region. Large numbers of men have been engaged in getting lumber in the swamp, and have been so engaged for years. The surface of Lake Drummond is about fifteen feet above tide level at Norfolk. The Dismal Swamp canal, which gives inland navigation from Norfolk harbor to the sounds of North Carolina, is fed from the lake, the water of which is perfectly pure, does not stagnate, and is preferred by all sea going vessels to any spring water which can be obtained. The "Jericho canal," on the west, conducts the water of the lake to the Nansemond river, and is supplied by one lock only, located at the lake. This great swamp is one vast body of timber which it would be a misfortune to clear up and reduce to cultivation, fertile as it is, because its constantly renewing supplies of cypress and juniper timber are more valuable and profitable than any crops which might be grown upon the soil. The lake has a surface area of thirty-five square miles, and is an attractive resort for fishermen, while the surrounding forests abound in wild game.

Taxation here is very reasonable. In Suffolk, the tax for town purposes is eighty cents on the hundred dollars of assessed values, while all other taxes for State, county, school and other purposes is not quite one per cent. upon assessed values. Factory sites just outside the corporate limits of the town can be secured at reasonable prices and in such locations as furnish every facility for shipping. By locating outside the corporate limits town taxes are avoided, while all the advantages of the town are available. In the town and near it are mineral springs of great medicinal value, the waters of which have proven peculiarly beneficial in cases of dyspepsia and other diseases. The run to Norfolk by rail, over four different rail-

roads, is made in about forty minutes. The celebrated resorts at Old Point, Virginia Beach and Ocean View are within an hour's run of Norfolk.

Labor here is cheaper than in New England and other Northern States. Laborers can afford to work for smaller wages, because the expense of living is so much less. Fuel is abundant and cheap, while vegetables, fruits, meats and fish of all kinds are here in abundance at low rates. The mildness of the climate requires less expense for clothing. Factories now in operation here employ about one thousand laborers, secured almost exclusively in this vicinity and very efficient. Considering all the advantages of location, climate, easy access to the best markets and abundant supplies of raw material in almost any line of manufacturing industry, Suffolk offers inducements equal to any other locality in the country, and those who shall avail themselves of them can not fail to find here profitable employment for an abundance of capital. Parties seeking profitable investments may get all necessary information by a personal inspection or by addressing the undersigned.

JOHN H. WRIGHT.

NEW BERNE.

A Glimpse at its Past and Present.

A Large Pulp Mill.

[Special correspondence MANUFACTURERS' RECORD.]
NEW BERNE, N. C., April 27, 1899.

A century or more ago the vessels of the old world loaded and unloaded their freights at New Berne. Since then this city has seen many periods of prosperity and many reverses but the outlook now gives promise of a bright and active future. The first permanent settlement was made in the year 1710 by German and Swiss refugees, who, fleeing from religious persecution in their own country, had accepted a refuge in England. A Swiss nobleman from the Canton of Berne, Christopher de Graffenried, and another Swiss gentleman who was well acquainted with America, purchased a tract of land in this vicinity, paying therefor one pound sterling for each hundred acres, and agreed to transport 600 of their people to the land, give each the use of 250 acres for nothing for five years, furnish them with necessary tools and agricultural implements free, supply them with cattle, sheep and hogs upon a seven years' credit, and also furnish them with sufficient food for themselves, to be paid for after two years. In December, 1710, the landing was made at what is now known as "Union Point," and New Berne was commenced.

From 1711, when the Indians massacred a large part of the population, until 1738, when the legislature first met here, but little is known, but for several years thereafter the sessions of the legislature were held here, and much foreign and coastwise business was transacted by the people of New Berne, and her wharves showed active life. Having gradually recovered from the disastrous effects of the war in 1861-65, prior to which New Berne was a very wealthy place, there is now

A BRIGHT FUTURE

in store for her. The people have been moving along, slowly recuperating their exhausted resources, making improvements here and there, bringing up the standard of their soil year by year, establishing factories, and slowly but surely placing their town on a solid basis for future growth; and now they are ready to invite new enterprises and to join hands with all who may wish to locate here and aid in its upbuilding and share the prosperity for which its people have worked. They offer

FREE SITES

to manufactures of all kinds, and many of its citizens stand ready to aid with their capital any who desire it. There are at present in New Berne and vicinity about twenty steam saw mills, ranging in capacity from 5,000 to 40,000 feet of lumber per day, with an annual output amounting to 60,000,000 feet, valued at \$600,000. The other manufacturing interests are grist mill, cotton-seed oil mill, cotton ginning, oyster canning, fertilizer factory, ice factory, distilling turpentine, buggy works, candy, cigar, clothing, box factories, etc., the total output being about \$400,000 per annum.

The town is situated on the Atlantic & North Carolina Railroad, at the junction of the Neuse and Trent rivers, about 30 miles from the ocean, and at the head of ocean navigation, and is connected by water with the sounds and rivers of Eastern Carolina. It is the center of the trucking interests of the State, and has in the near neighborhood some of the largest truck farms in the South. It is said that over one million feet of lumber are consumed annually in making boxes for shipments of vegetables, and a large amount for fish boxes.

Sixty million feet lumber and millions of cypress shingles are sent annually to Northern markets by rail and by water. Wood pulp for paper stock, and also wood plates made by the Gray Manufacturing Co., consume a large amount of cypress and gum. Oil mill, guano factory and other industries add to the life and business of the place. The largest shipment from the city, however, is cotton.

New Berne is not only the port of entry, but is also the banking town for eight counties. Strange to say, there is only one national bank in the place; as might be expected, it has coined money; the published statement shows capital stock \$100,000, surplus \$70,000, profit and loss \$10,000, and a semi-annual dividend of 10 per cent. It looks very much as though there is a good opening here for another bank. The citizens feel the need of manufacturing industries, particularly canning establishments for vegetables and fruits, cotton and knitting factory, paper mills, furniture factory, or any industry that will use raw material and employ labor.

One of the most important enterprises in this section is the works of the

B. H. GRAY MANUFACTURING CO.,

situated just across the Trent river at its junction with the Neuse. The company manufacture wooden plates, butter dishes and wood pulp. The first-named articles have been made by the company at this point for several years, but about three years ago they purchased their present site and secured at a heavy outlay the right to use the Ekman patent. Though the wooden plates and dishes were the first to be made, and are still being turned out by the hundreds of thousands weekly, the pulp business has become the most important feature of these works. The mill site proper is a tract of four acres, though the town of Graywood, where the mill is located, as laid out, contains over two hundred. The buildings are very extensive and have all the latest and best machinery.

There are three artesian wells giving 1,000 gallons each per minute of clean, pure water, perfectly free from all earthy matter—a prime necessity in cleansing paper-pulp from all foreign and coloring matter. Perfectly pure water must be had to make the finer grades of white writing and printing papers, but it is hard to obtain, and at most of the paper mills becomes an important item of cost, and nearly always has to be filtered, which is not the case at Graywood.

The wood from which the pulp is manu-

factured is brought by water to the wharf of the company at Graywood. Here it is unloaded and taken upon a tramway to the point at which those engaged in peeling are at work. This operation consists of removing all the bark and rough knots from the wood, leaving it clean and white. It is then taken to the "chipping room," where it is sawed into proper size for the chipper, a machine consisting of a revolving disk, eight feet in diameter, weighing 3,000 pounds. Three knives are set in this disk and make from 1,300 to 1,500 cuts per minute, chipping the wood into particles from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch in length. So great is the force necessary that a 60 horsepower engine is required to operate this alone. After passing through this machine a powerful air blast takes the chips into the fourth story of the building to the "digester" room, to a bin directly over the digester, which is a huge iron cylinder six feet in diameter and 25 feet in height, made acid proof by a seamless lead lining, the whole weighing 60,000 pounds. Each charge for this mammoth stomach is two and one-half cords of wood, which has been masticated by the "chipper." Leaving the "digester" room for a time, we pass to the second floor, where magnesia is pulverized. The magnesite which is mined in Germany is brought here in its crude state and calcined in a kiln prepared especially for that purpose, from which kiln it passes to the pulverizer, and thence to the acid machine below. This machine is composed of three immense cylindrical tubs, one above the other, with a capacity of 1,000 gallons each. Through the center of each of these tubs is a revolving shaft, with paddles for the purpose of agitating the mass with which the tubs are charged. Seven hundred and fifty gallons of a mixture of water and magnesia are placed in each receptacle, the agitators started, and the entire amount soon becomes what is known as "cream of magnesia."

Now to the sulphur furnaces, where sulphur is burned, and the fumes passing from the furnaces are forced by a blower through a cooler and into the tubs, where the sulphur is taken up by the cream of magnesia, and the impure portion of the fumes passes off at the top of the acid machine. This process forms what is known as "sulphurous acid" of the requisite specific gravity for the reduction of the wood to pulp. This sulphurous acid is pumped to tanks in the digester room and from them into the digester, 250 gallons being necessary to "digest" the two and one half cords of wood. The cap is next screwed on and sealed and live steam turned into the mass at a pressure of 85 pounds to the inch, and the temperature raised to about 300 degrees. This is continued for from six to twelve hours, until all incrustating matter is dissolved from the wood and the fibre entirely separated. It is then blown off into the drainer and thoroughly washed; thence it passes to the "agitators" in the "wet room;" then through the screens to the "wet machine," from whence it is taken in sheets, packed in bales and shipped to paper manufacturers throughout the country.

The pulp manufactured by this company is claimed to be the best in the country. The fibre is long and from it the finest grades of paper can be made, equal to that made from linen, from which it cannot be told without the aid of a powerful microscope. It is the only mill of this character in this section. Its future is assured, and under the economical and able management of Captain Gray, great things may safely be prophesied concerning it. He has a complete machine shop in the mill, where all repairs are made under his own supervision, and all boilers used are erected at this shop. Work costing others thousands of dollars costs him but hundreds; and while the plant as it now stands has cost but \$75,000, \$100,000 would not replace it.

JOHN P. COFFIN.

Glasgow—A New Industrial Town in Virginia.

That Virginia is one of the most richly endowed States of the Union, it is needless for us to say. The MANUFACTURERS' RECORD has often told of its great mineral and timber wealth, its fertile soil and its manifold attractions, and predicted that it would become one of the greatest industrial centers of the country. These predictions are now about to be fulfilled. Throughout the State there is great activity. The old towns and cities are growing as they have not done for years, and new towns

of building new railroads to secure proper shipping facilities, as many new towns are compelled to do.

Glasgow is already triangulated by railways—the Richmond & Alleghany of the Chesapeake & Ohio system, the Shenandoah Valley and the Lexington Branch of the Richmond & Alleghany Railroad—which connect it with the Pocahontas, New River and Connellsville coal fields, and with the best markets of the country, while the Norfolk & Western system and the Valley branch of the Baltimore & Ohio are but a short distance from the place and connected directly by the roads now reaching there.



MAP SHOWING LOCATION OF PROPOSED TOWN OF GLASGOW, VA.

are being started on the same broad scope as the most noted manufacturing towns of Alabama and other States. Towns and cities are now virtually built to order. Men of experience, after careful study and investigation, select a desirable location having all the advantages required for manufacture, for trade and as a place of residence, and there they lay out and build a town. Certainly a vast improvement over the old way, where a straggling village, often badly located, with its crooked roads and other disadvantages, gradually, through the force of circumstances, grew into a town or city, never able though to rid itself of the bad location, the lack of pure water and similar disadvantages. The people of Virginia are turning their attention to the founding of new towns, and Northern capitalists, realizing that the most profitable investments which can now be found are in the development of manufactures and the building up of industrial towns in the South, are putting millions of dollars into these enterprises. Virginia is peculiarly fortunate in being so near to the great financial and trade centers of the country, and thus, added to its facilities for cheap manufacturing, has the advantage of near markets for the product of its furnaces and factories.

One of the most promising of the new enterprises recently projected in that State is The Rockbridge Co., which has been organized to build an industrial town at Balcony Falls, a noted place, long regarded as one of the most attractive sites in the whole State for a city. This place, which is to be known as Glasgow, is shown by the accompanying outline map to be admirably located as regards transportation facilities, thus obviating the necessity

The Rockbridge Co. has been formed under a liberal charter for the purpose of owning and developing selected properties of great value which are now controlled in the interest of the company. These properties embrace 95,000 acres comprising, it is stated, some of the most valuable mineral tracts in the country, and a body of 4,000 acres beautifully located just above the confluence of the James and North rivers, near Balcony Falls, and four miles from the famous Natural Bridge in Rockbridge county, Va., which seems to have been designed by nature as a site for a large town. Here it is proposed to combine the great resources of the company's properties in building up the manufacturing town of Glasgow.

RESOURCES OF THE PROPERTIES.

The resources of these properties are stated to be:

1. Iron ores of ascertained excellence in inexhaustible quantities and of five distinct varieties, which can be cheaply mined and delivered at the furnaces at a low cost.
2. Limestone in the immediate vicinity of the iron veins.
3. Manganese only partially developed, but as there are over 30 miles of the strike of the manganese ores upon the properties referred to, the work already done gives assurance of large supplies of this valuable mineral.
4. Timber.—Thousands of acres of virgin forests, much of it containing valuable woods for lumber, and all valuable for fuel.
5. Water Power.—The entire power of the James and North rivers already developed by three or four dams.
6. Several thousand acres of valuable

arable land, which can be largely increased by reducing wood land to cultivation.

7. Hydraulic cement, fire clay, kaolin, mineral paint, superior building stone.

8. Several thousand acres of the most valuable coking coal lands in the country, affording an ideal furnace fuel."

Hon. Fitzhugh Lee, governor of Virginia, is the president of the company; Mr. William A. Anderson, of Lexington, vice-president; James E. Edmondson, treasurer, and G. D. Letcher, secretary. Among the directors are Messrs. F. O. French, 10 Wall street, New York; E. A. Packer, 1 Broadway, New York, and A. W. Harman, Richmond, Va. Full information as to the plans and proposed operations of this company, with pamphlets, etc., can be secured from any of the officers.

Otto Gas Engine and Pump Combined.

But few cities are provided with a water supply sufficiently abundant and cheap and possessing enough pressure at all times to make it available for the hydraulic elevators now used in most of our business blocks. A large number of these machines have their own pumping plant to supply the water, and the "Otto" gas engines connected to pumps either in one combination and on one base or driving separate pumping machinery by belt, are used in many cases where heat and annoyance of steam were sought to be avoided during summer time. In such cases the heating during winter is effected by low pressure steam heaters, returning condensed water back to boiler. This combination of gas power and low pressure steam makes it possible to employ less skilled attendance to be in charge of machinery and reduces risk of fire or explosion, inseparable from the employment of high pressure steam during all seasons of the year, and affords besides direct savings in running expense in many cases. The convenience of the system renders it valuable for tenement houses and private residences, where hydraulic elevators are now frequently used, and to supply their special want a combination of a smaller "Otto" engine and pump than usually

which the delivery of water is regulated according to requirements of elevator. This bye-pass is acted on in the usual manner by a float in water tank.

The capacity of engine and pump corresponds to about 2,500 gallons per hour for an elevation of 100 feet. It is built by the "Otto" Gas Engine Works, Philadelphia and Chicago.

WILL ERECT ELECTRIC-LIGHT PLANT.

CORPUS CHRISTI, TEXAS, April 30, 1889.—The Corpus Christi Electric Co. intend putting up a telephone exchange and electric-light plant, &c., but as yet have not decided upon whole system of electric light.

J. H. BLUMENTHAL, G. M.

TO BUILD RAILROAD.—ROCK LEDGE, FLA., April 27, 1889.—We have not decided whether to build a narrow-gauge railroad or a tram-road $3\frac{1}{2}$ miles through Rock Ledge. Information might decide our people as to which is preferable. We want one or the other completed by 1st of December next. I will be glad of any advice and information.

C. B. MAGRUDER.

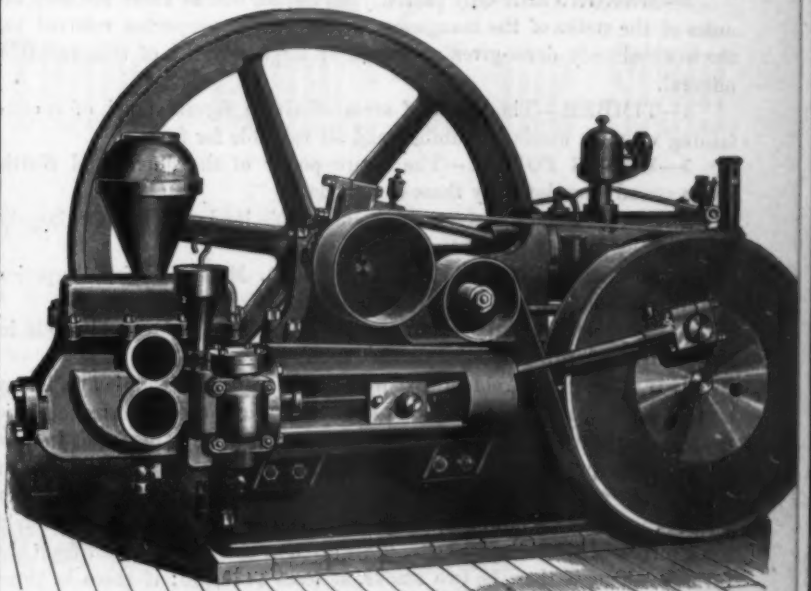
BUILDING LARGE SHINGLE MILL.—NEW

ORLEANS, LA., April 26, 1889.—We are putting up a shingle mill in the parish of St. John, this State, near the lines of the L. N. O. & T. and I. C. R. R. about 30 miles from this city. We will equip it with Perkins & Co.'s most approved shingle machinery. Our capacity will be about 100,000 a day, and we hope to be in running order by the 15th of June. Our P. O. address is 54 Union street, this city. We have a very large tract of fine cypress timber and propose to turn out as good as the very best that is offered.

CHAFFE & ATHENS.

NOTES FROM MORRISTOWN, TENN.—MOR-

RISTOWN, TENN., April 27, 1889.—Numerous parties from Northern States are in the city prospecting; many have already located. The splendid property known as the "Halloway Place," adjoining the city on the southwest, has been purchased by Mr. Thompson, of Illinois. The "Pride Place," a miles north of the city, has been purchased by Mr. Van Etten, of New York. The new brick building for the Morristown Medicine



OTTO GAS ENGINE AND PUMP COMBINED.

called for was designed, as shown on cut herewith illustrated.

Quiet running being of importance for machinery running in buildings of a private nature, the power is transmitted to pump by belt on large diameter pulley instead of by gear wheels, and the speed of pump is slow so as to avoid all shock or water hammering. The pump is also provided with a patent bye-pass valve, by

Co. is nearing completion, and more houses are in process of construction than ever before known at this season of the year. The Iron Belt Development Co. filed its application for a charter April 25. A gentleman from Wales is here investigating the mineral ores of the surrounding country, and while secrecy and silence governs his conduct, he brings in a full sample case every evening and keeps his sketch and note book in constant use. X

The Rockbridge Company,

AUTHORIZED CAPITAL \$5,000,000.

GLASGOW, VA.

PRESENT POSTOFFICE ADDRESS OF COMPANY, LEXINGTON, VA.

A New Industrial Center in the Old Dominion.

This company is formed under a liberal charter for the purpose of owning and developing selected properties of great value which are now controlled in the interest of the company. These properties embrace 95,000 acres, comprising some of the most valuable mineral tracts in the country, and a body of 4,000 acres beautifully located just above the confluence of the James and North rivers, near Balcony Falls, and four miles from the famous Natural Bridge in Rockbridge County, Va., which seems to have been designed by nature as a site for a large town. Here it is proposed to combine the great resources of the company's properties in building up a manufacturing town to be known as Glasgow.

At Glasgow it is expected that the company will erect two or more coke iron blast furnaces and a plant for the manufacture of ferro manganese, perhaps the most lucrative of all manufacturing industries connected with the product of the metals.

Glasgow is triangulated by railways—the Richmond & Alleghany of the C. & O. system, the Shenandoah Valley and the Lexington Branch of the R. & A. Railroad—which connect it with the Pocahontas, New River and Connellsville coal fields, and with the best markets of the country.

RESOURCES OF THE PROPERTIES.

1—IRON ORES of ascertained excellence in inexhaustible quantities and of five distinct varieties, which can be cheaply mined and delivered at the furnaces at a low cost.

2—LIMESTONE in the immediate vicinity of the iron veins.

3—MANGANESE only partially developed, but as there are over 30 miles of the strike of the manganese ores upon the properties referred to, the work already done gives assurance of large supplies of this valuable mineral.

4—TIMBER.—Thousands of acres of virgin forests, much of it containing valuable woods for lumber, and all valuable for fuel.

5—WATER POWER.—The entire power of the James and North rivers already developed by three or four dams.

6—Several thousand acres of valuable arable land, which can be largely increased by reducing wood land to cultivation.

7—Hydraulic Cement, Fire Clay, Kaolin, Mineral Paint, Superior Building Stone.

8—Several thousand acres of the most valuable coking coal lands in the country, affording an ideal furnace fuel.

It is no longer a problem that iron can be made in Virginia at a larger certain profit than anywhere else in the country, and the properties and the town site selected afford the most favorable conditions that exist in Virginia for its profitable manufacture. The company claims that even at present low prices it can make iron at a profit of from \$2.50 to \$3.00 per ton for the entire output of the furnaces, and that this profit is more likely to be increased than diminished. This gives as the annual profit from the furnaces alone, if there be two stacks, at least \$175,000; if there be three stacks, \$262,500, or from 10 to 13 per cent. upon the entire capital stock of the company now proposed to be sold, whether it be in the one case \$1,500,000 or the other \$2,000,000. This, without taking any account of the income which may be reasonably expected from the manganese and other valuable minerals on the properties, from the sale of timber and bark, or of the profits to be realized from the town or land and improvement feature of the enterprise.

The company will own 4,000 to 5,000 acres available for town and residential purposes and for manufacturing sites. It offers the subscribers to its present issue of privileged stock the right to take one lot for every two shares subscribed for at the nominal price of \$10 per lot. It will probably set apart 1,000 acres to be given to companies and men of enterprise who

will come and establish manufacturing plants at Glasgow. It will even after this have a large area, which will be sold from time to time in town lots as the town is built up and the demand is created for such properties.

The estimate, based upon the experience of localities and communities far less favored by nature, is that the land and improvement feature will eventually return to the stockholders two or more dollars for each dollar paid by them. The lots they get with their stock, it is believed, will, so soon as the capital now called for is paid in, be worth more than the price paid both for stock and lots. The 95,000 acres of land referred to embrace a number of choice tracts of mineral land, but the company, when its capital shall have been subscribed, will have the option of purchasing so much of the land offered as it may upon full consideration find it desirable to acquire.

Terms of Subscription.

The company now invites subscriptions to its capital stock to the amount of \$1,500,000, and not exceeding \$2,000,000, and it reserves the right to accept or reject any subscriptions which may be made in excess of that sum. The shares will be allotted in the precise chronological order in which they are subscribed for.

The shares are \$100 each to be sold at par, payable \$5 on subscription, \$20 on call of the board of directors not earlier than 15th May, 1889, and residue in instalments of \$10 to \$20 each per share, in 3, 9, 12, 18 and 24 months thereafter.

The subscriber for every two shares will have the privilege of purchasing one lot in the town of Glasgow at ten dollars per lot, and the subscriber for 30 shares may purchase 14 lots and one villa site of an acre or more, in or about said town, for \$10 for each lot and for such villa site.

All payments on stock or lots must be made directly to the Manhattan Trust Company, 10 Wall Street, New York, or to the Treasurer of the company, Lexington, Virginia. Persons desiring to subscribe for the stock will find books of subscription open at the office of the Manhattan Trust Company, New York, the banking house of Warren & Quarles, Richmond, Va., and at the office of the company, Lexington, Va.

Applications for stock may be addressed to the Manhattan Trust Company or to the Treasurer, Secretary or any of the officers of the company. Parties desiring to subscribe for the stock are requested to carefully examine the prospectus of the company and the descriptive memorandum published therewith (which can be found at the above named offices, or can be had on application to any officer of the company) for fuller information as to the purposes and properties of the company and the terms upon which its stock can be had.

The following are the officers of the company under its preliminary organization:

President—FITZHUGH LEE, Richmond, Va.
Vice-President—WILLIAM A. ANDERSON, Lexington, Va.
Treasurer—JAMES K. EDMONDSON, Lexington, Va.
Secretary—G. D. LETCHER, Lexington, Va.

DEPOSITORIES.

Manhattan Trust Company, 10 Wall street, New York.
Bank of Lexington, Virginia.

DIRECTORS.

FITZHUGH LEE, Richmond, Va.
FRANCIS O. FRENCH, 10 Wall street, New York.
A. W. HARMAN, Richmond, Va.
E. A. PACKER, No. 1 Broadway, New York.
WILLIAM A. ANDERSON, Lexington, Va.

A SUMMER RESORT

2,300 Feet Above Sea Level.
Pure Oxygenated Air, Broad
Streets, Fine Pavements,
Mineral Waters.

WYTHEVILLE,

★ VIRGINIA. ★

**THE COMING
Winter Sanitarium**

OF THE SOUTH.
Dry Atmosphere. Tempered
Winds. Pure Water. Macadam-
ized Streets. Turnpike Roads.
Mineral Waters.

"THE SARATOGA OF THE SOUTH."**AN ALL THE YEAR-ROUND RESORT.**

With its present capacity cannot accommodate the crowds of summer visitors. Hence, to secure a large modern hotel the town council will donate a site containing ten acres of land, beautifully situated, with commanding views of surrounding mountains, and perfect drainage, to any person who will build one.

The town is situated on the summit of the Alleghanies, 2,300 feet above tidewater, 133 miles from Lynchburg, 71 from Bristol, Tenn., and on the line of the Norfolk & Western Railroad, midway between New York and New Orleans. Population 3,000. No better place situated for a summer and winter resort.

Its air is pure and invigorating. During the summer months a pleasant mountain breeze cools the heat of midday, and a blanket is requisite for comfort during the night. It is recommended by eminent physicians to those suffering with consumption, catarrh, dyspepsia, nervous prostration and insomnia.

It is beautifully laid off in squares, with wide streets, many of which are macada-

mized and adorned with spacious yards. It is the center of a network of country roads, all affording delightful drives for health and recreation. It is situated in the famous blue grass region, and the grass is of spontaneous growth.

It contains an ever-flowing fountain of excellent alum-chalybeate water on Main street, especially recommended for dyspeptics and delicate ladies and feeble children, free to all. Within a few miles is the celebrated Cove Lithia Springs, specially noted for its curative powers. Limestone and Freestone Water can be had in abundance.

Its church, school and collegiate facilities are superior to those of any summer resort in the State.

FREE FROM MALARIA. FREE FROM MOSQUITOES. FREE FROM CYCLONES. FREE FROM EPIDEMICS.

19 Hours From New York. 12 Hours From Washington. 37 Hours From New Orleans. 24 Hours From Memphis. 20 Hours From Louisville. 12 Hours From Nashville. 24 Hours From Savannah. 15 Hours From Atlanta. 6 Daily Trains. 1 Telegraph Office. 2 Banks. 1 Insurance Company. 2 Weekly Papers.

ADDRESS

C. W. GLEAVES, Mayor.

Wythe County, Va.

First Premium Mineral and Timber County of the State.

Awarded at Richmond Exposition, 1888.

The best Mineral, Timber and Agricultural County inviting the attention of Railway and Manufacturing Capitalists in the Appalachian Chain. The best bodies of Mineral and Timber are in close proximity to water powers of unlimited capacity. No finer health resort in the world. Has an elevation of 2,300 feet above sea level. Ores and Minerals in greatest profusion and variety. **IRON ORES.**—Brown, Red and Magnetic, occupying 110 square miles of the county territory. Less than 10 square miles of these now yield annually over 130,000 tons of ore. **ZINC AND LEAD.**—The largest deposits in the world. These mines supplied the armies of the Patriots of '76 with lead. The first lead mined in this county was in 1756. **SEMI-BITUMINOUS COAL.**—Occupies 35 square miles of the county's territory. Limestone for fluxing and for lime in purest qualities known. The decomposition of which makes the most productive soil for grain and grasses. **SUPERIOR FIRE CLAYS** are now being discovered. **MINERAL WATERS** of great excellence, with established reputations of many years, such as Lithia, Bromide-Arsenic, Sulphur, Chalybeate and Alum.

Splendid Agricultural Facilities.

NATIVE BLUE GRASS, luxuriant growths of Timothy and Clover. Average yield of Wheat, 15 bushels to the acre. The highest yield of Corn to the acre, 105 bushels. Finest location for Creameries in the South.

The Timber Lands of Wythe County,

Unexcelled for the character, quality and production of its hard woods, such as White Oak, Hickory, Walnut, Poplar, Pine, Hemlock and Ash.

Large Forests of Car Lumber White Oak.

All Capitalists, Manufacturers and Farmers are cordially invited to come. Lands are cheap. Iron can be made as cheap as in Birmingham, from the finest ores in the world. The Farming Lands are the best all-round crop lands in the entire South. For any further information, address

FRANK ST. CLAIR, Secretary County Committee,
Box 37, Wytheville, Va.

WEST POINT, VA.

Deep Tide-Water Terminal Town

of the great Richmond & Danville Railroad System and of the railways controlled by the Richmond & West Point Terminal Co., including the East Tennessee, Virginia & Georgia Lines.

MATCHLESS HARBOR, INCOMPARABLE CITY SITE.

HEALTHIEST PLACE BETWEEN NEW YORK AND GALVESTON.

Purest drinking water, most salubrious climate on the South Atlantic Seaboard. No mud in the streets. No malaria in the air. Lighted by electricity. Excellent schools. Churches of all denominations.

Extraordinary Inducements for Manufactories.

All new industries exempt from taxation. **Factory Sites Donated.** Fifteen hundred and sixty per cent. increase in the value of improved property since 1860. Six hundred per cent. increase in population. West Point has never been "boomed" and but little advertised, consequently building lots may still be had at lower prices than prevail at many towns of half the size and one-tenth the present business of West Point. Last year West Point was the fifth cotton port in the Union. Next season it will be the second, for by then the Missouri Pacific will turn over its Arkansas Indian Territory & North Texas cotton to the Richmond & Danville's new line now being built to the Mississippi River.



THE TERMINAL HOTEL, WEST POINT.

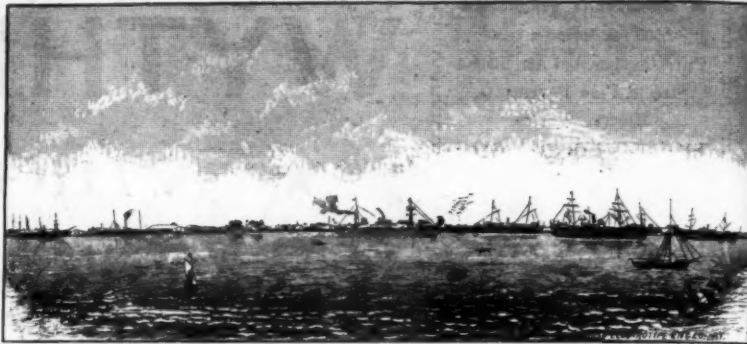
Persons desiring further accurate details are requested to address
THOS. B. HENLEY, West Point, Va.

This alone will quadruple the value of West Point property. Lots are now offered at from \$50 to \$1,000, so as to meet the views of purchasers of every class.

Only 30 miles from Richmond; a night's ride by palatial steamers from Baltimore (fare only \$2;) within easy reach of Philadelphia, New York and Boston. Steamers from Baltimore daily. Tri-weekly "Old Dominion" steamers from New York. Semi-weekly line steamers from Providence, R.I.

Come and see the town and its great docks and sea-going steamers loading for foreign ports.

Come and drink the health-giving water flowing from any one of West Point's 150 artesian wells.



STEAMSHIPS LOADING COTTON AND GENERAL CARGO AT WEST POINT.



GENERAL AGENT FOR THE

Richmond, West Point Land, Navigation & Improvement Co.

FOR SALE.
FARMS,

Timber Tracts,

MILLS,

West Point Property

BOTH

Improved and Unimproved.

THOMAS B. HENLEY,

× Real Estate ×

Broker and Auctioneer.

FOR RENT.
FARMS,

Store Houses,

MILLS,

Houses and Lots

—IN—

WEST POINT.

Roanoke. Virginia.

✱ THE MAGIC CITY OF THE SOUTH. ✱

Population in 1880, 400.

Population in 1888, 15,000.

Her Present Phenomenal. Her Past Remarkable. Her Inducements Unrivalled. Her Future Magnificent.

Climate and Health Unsurpassed. Pure Water. Sewerage Excellent. Surroundings Beautiful.

At the Junction of the Norfolk & Western, Shenandoah Valley and Roanoke & Southern Railways. 258 Miles from Norfolk, Va. 151 Miles East of Bristol.

Read the Proud Record of Roanoke's Industries, and be convinced that her Remarkable Progress is no less Substantial than Wonderful.

Roanoke Machine Works, valued at \$5,000,000, manufacturers of locomotives and other railroad equipments. Employing from 1,000 to 1,500 men.

Virginia Packing Company, capacity 4,000 cans per day.

Roanoke Water Works, capital stock \$250,000. Supplies water as clear as a crystal from a mammoth spring on Mill Mountain. Capacity for supplying a population of 100,000.

Roanoke Gas Company, capital \$120,000.

Three large Tobacco Factories.

Two Warehouses for the sale of leaf tobacco.

Diamond Ice Manufacturing Co., capital \$25,000.

Four Banks, with an aggregate capital of \$450,000.

Five Building Associations, with an aggregate capital of \$600,000.

Land and Improvement Companies, with an aggregate capital of \$700,000.

Virginia Steel Company, owners of extensive and valuable mineral properties in Southwest Virginia, are now preparing to construct a Bessemer Steel Plant at a cost of \$300,000.

Virginia & North Carolina Construction Company, capital \$500,000.

Virginia Company (formerly the Iron Belt Land, Mining & Developing Company), capital \$500,000.

Roanoke Car Axle Works, capital \$250,000.

Crozer Steel & Iron Company, cost of plant \$500,000; capacity 120 tons pig iron per day.

A Roller Flouring Mill, valued at \$15,000.

Virginia Picket & Wire Fence Co., capital \$25,000.

One Steam Mattress Factory.

One Cigar Factory.

One Box Factory.

Telephone System.

One Wagon and Buggy Factory.

One Sash, Blind and Door Factory.

Three Planing Mills.

Four large Brick Yards.

Alleghany Institute, cost \$20,000.

Four Hotels, capable of accommodating 500 guests. Hotel Roanoke cost \$30,000.

Two Daily Newspapers.

Three Weekly Newspapers.

Two large Steam Job Printing Establishments.

15,000 of the most wide awake and enterprising people in the South.

Roanoke is the southern terminus of the Shenandoah Valley Railroad. The northern terminus of the Roanoke & Southern Railroad (under construction.) The terminus of two divisions of the Norfolk & Western Railroad.

IN COURSE OF CONSTRUCTION.

THE ROANOKE ROLLING MILL.—This mammoth enterprise is just receiving its finishing touches, and in a few weeks will be turning out iron of every description.

THE ROANOKE STREET RAILWAY will begin very shortly to lay its tracks through the principal streets of the city. Their cars will be operated by the most improved equipment of steam motive power.

THE ROANOKE BRIDGE WORKS.—This enterprise promises to be one of the leading industries of our now busy city. Has already secured a site, all of the necessary stock has been taken, and proposes to have its plant completed by March, 1889. Will employ 500 skilled mechanics.

NORFOLK & WESTERN RAILWAY REPAIR SHOPS.—This company having recently made Roanoke the terminus of two divisions of its great railway system, will construct here at once the large repair shops, employing a large number of men.

PROJECTED ENTERPRISES.

Electric Lighting System, both arc and incandescent.

Cotton Mills. Chair Factory. Creamery.

Opera House to cost \$50,000.

Government Building to cost \$50,000.

Roanoke will very probably be the southern terminus of the Valley Branch of the Baltimore & Ohio Railroad, now completed to Lexington, 50 miles from Roanoke.

ROANOKE IS HEADQUARTERS FOR

The Norfolk & Western Railroad Co., which employs 300 clerks.

The Shenandoah Valley Railroad Co., which employs 75 clerks.

The Washington & Western Railroad Co.

The Roanoke & Southern Railroad Co. (now under construction.)

The Pocahontas Coal Co., the largest coal operators in the world.

And nearly all the mining companies operating in Southwest Virginia.

ROANOKE HAS BUILT

2,500 houses within the past six years. 200 to 250 are now (November, 1888) in the course of erection, among which are a splendid Fire Department Building, a Masonic Temple to cost \$35,000, a Y. M. C. A. Building to cost \$20,000. She has an elegant new Courthouse and Jail, Market House, Opera House and Public School Houses. She has twelve churches, representing nearly every denomination.

ROANOKE EXPENDED DURING 1888

\$16,000 for Public School Buildings.

\$25,000 for Sewerage.

\$25,000 for Street Improvement.

\$16,000 for Miscellaneous Public Work.

THE BONDED DEBT

of Roanoke is smaller than that of any other city of equal size in the South, being less than \$150,000. The city tax rate is proportionately low, being \$1.10 on the hundred.

Roanoke has a wholesale and retail trade, embracing 16 of the wealthiest, most productive and most rapidly developing counties in Virginia, and its wholesale trade extends into West Virginia, Tennessee and North Carolina.

Roanoke is the most prosperous city in Virginia, and in a few years will be the largest inland city in the State. When the census of 1890 is taken, her population will not fall far short of 25,000.

No man has ever yet lost money in Roanoke real estate. The tendency of value being constantly upwards as the city grows, and as the prospects of the city are brighter now than ever before in her history, it is reasonable to presume that prices will get still better. If you want to make an investment, no matter how small or how large, that will pay you handsomely, get hold of some Roanoke real estate.



The following industries and manufactories are much needed in Roanoke, and either or all can be profitably operated here, where facilities for their successful prosecution are unbounded and unrivalled: Wagon, Buggy and Carriage Works, Iron Works of all kinds, Stove Foundry, Broom and Bucket and Barrel Factory, Brewery, Iron and Wire Fencing, Iron and Terra Cotta Works, Brick Yards, Plumbers, Nails, Horse Shoes, &c.; Cotton and Oil Mills, Tanneries, Canning Establishments, Fertilizer Factory, Furnaces and Engine Works, Chair and Furniture Factory, Harness Makers, WHOLESALE HOUSES in all branches of business (city is well supplied with retail stores, but there is a fine field for wholesale business), Cigar and Cigarette Factories, Spoke and Handle Factory, Iron and Wood Pump Works, Steel Rails, Paint and Tool Works. A First-Class Restaurant is much needed, for which no better opening was ever offered. For further information address the following business firms of the city:

JAMES S. SIMMONS & CO.

R. H. GRAY & CO.

ROANOKE LAND & IMP. CO.

YEAGER & CAMPBELL.

ASBURY GREIDER & CO.

J. R. HOCKADAY & CO.

Anniston

THE CENTER OF
Iron and Cotton Industry
AND MINERAL WEALTH.

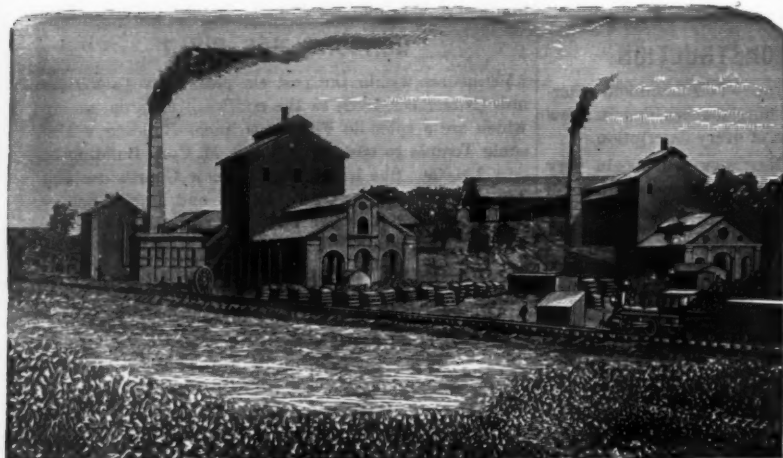
"The Model City of the South."

IT IS

The Profits of Labor only that can add to the wealth and prosperity of a nation or community. It is this only that can make business successful and profitable, sustain and add to the value of real estate.

WHERE

Nature's resources are greatest, where nature's capital in rich agricultural lands, and where iron, coal and other useful minerals are most abundant, most accessible and of superior quality for all purposes, there will capital find its safest investment, largest returns and labor reap its richest reward. It is to the Anniston District where the best professional mining engineers and experts of the United States declare the great center of the Iron Industry of the South will drift, where its manufacture will be most permanent and profitable, and where ores in the greatest abundance and accessibility exist, and where they will be most easily mined, that this applies.



WOODSTOCK FURNACES—ANNISTON.

The Development of the Past Fifteen Years

Confirms all this, and every year convinces the experts of the correctness of their judgment. It is no longer opinion based on scientific and practical education; it is a fact that is clearly and successfully demonstrated, so that the visitor to the Anniston District can see at every step. The four iron furnaces that have been so long and successfully operated, and the new plant now being erected, and rapidly approaching completion, which will be capable of producing one hundred thousand tons of pig iron a year, demonstrate that

NOWHERE ELSE IN THE SOUTH

Has the iron industry been so profitable and so successful, or been established on so permanent a basis, and of no district is this so universally conceded by all, while nowhere else have arrangements been perfected and already established on so complete a scale to work the crude iron into higher branches of manufacture to increase its value, and to bring into the district the profits of skilled labor. THE GREAT CAR WHEEL WORKS OF NOBLE BROS. & CO., their rolling mill and steam forge and machine shops, and the Alabama Car Works, have been absorbed by the

UNITED STATES ROLLING STOCK COMPANY,

With a capital of \$4,000,000, for the purpose of adding to and enlarging the entire plant to build TWENTY CARS A DAY. Everything that goes into the creation of a car, except the tin for the roof and the wire nails, will be created from Anniston's crude material by her labor and skill. Fifty tons of wheel iron will be made into car wheels daily, twenty tons into car axles, fifty tons of pig iron into car and other castings, and fifty tons into bar iron and bolts, making nearly ten thousand dollars per day added to the wealth of the country by profitable labor converting nature's capital to the use of man. This company have a capital of \$4,000,000, and their Anniston works will represent a cash outlay of \$1,000,000. One thousand skilled mechanics will be employed as soon as the great enlargements under way can be completed.

THE STEEL BLOOMARY

Consumes and increases the value of twenty tons of pig iron per day, while the Pipe Foundry converts to the use of man TWO HUNDRED TONS OF PIG IRON PER DAY in one of the largest and best planned and most convenient labor-saving works on this continent. The Foundry of Murray & Stevenson, Engine and Machine Works of Pinder & Co., and Boiler and Sheet Iron Works of J. & D. Noble, all add to the consumption of crude material by the creation of finished work.

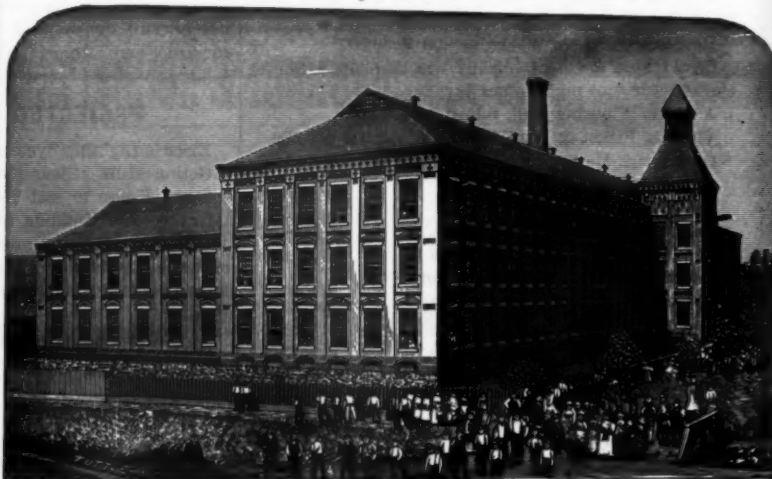
NOR IS IT TO IRON ALONE

That Anniston relies for increase of wealth and population. The Cotton Factory, with eleven thousand seven hundred spindles and three hundred and seventy-five looms, employing over three hundred and fifty operatives, adds greater value to the products of agriculture by converting six thousand bales of cotton into cotton cloth. The immense ninety-inch Morse Cotton Compress, with its brick warehouses, is fast making Anniston a cotton market and commercial center, and aiding its wholesale and retail merchants to extend and hold the trade of the country tributary to Anniston that its system of railroads has opened to them. The Georgia Pacific, the East Tennessee, Virginia & Georgia Railroad systems,

Give Direct Communication and Through Rates

To all parts of the country, while the Anniston & Atlantic Railroad, built by Anniston capital to open up new agricultural and mineral resources, gives Anniston, by connection with the Central of Georgia system, communication with the Atlantic sea coast and the new Anniston & Cincinnati Railroad, built and owned by Anniston citizens, opens up new resources and connections, and a shorter line with the great Northwest.

The proposed extension of the Anniston & Atlantic Railroad to Blocton will give another and shorter line to the great Cahaba Mines, producing the very best coal for domestic and manufacturing purposes in the South. Forty thousand acres of these coal lands, upon which a million and a half dollars have been lately spent in opening new mines and building several hundred coke ovens, ALL OWNED AND CONTROLLED BY ANNISTON CAPITAL, and developed to mine and manufacture three thousand tons of coal and coke per day, secures to Anniston for generations to come a full and certain supply of cheap fuel for all her industries, operated where a rich agricultural country can feed a manufacturing and commercial people, and where the



ALABAMA MANUFACTURING COMPANY'S COTTON MILL—ANNISTON.

Best, Healthiest and Most Invigorating Climate in the World,

With mountain air and pure water, and an elevation of nine hundred feet above tide water, insures the health and comfort of the workman and his family; where health and comfort stimulate and lighten labor, and secure to it and its industries the reward due to both. It is these advantages which have been given by nature that enabled Anniston's citizens to create her past and present prosperity, and which secure her future. It is that they may participate in and avail themselves of these advantages that Anniston invites NEW CAPITAL AND TALENT AND ENERGY from all sections. We invite all to come and see, and on the spot to judge for themselves of Anniston's great resources and possibilities. The comfort and quiet of the famous Anniston Inn will make a visit to our city a treat and pleasure. Any information, attention and courtesy will be given and shown by addressing or applying to the

ANNISTON CITY LAND CO., Anniston, Ala.

NEW DECATUR,

★ ALABAMA. ★

The New Industrial City of the Great Tennessee Valley.

DECATUR is situated in Morgan County, in Northern Alabama, on the great Tennessee River. New Decatur, at first an addition to Decatur, is now a separate municipality. It is free from overflow or miasmatic influences, and enjoys refreshing breezes throughout the summer season. All the geographical conditions of Northern Alabama are favorable for a mild, salubrious and uniform climate. Great extremes of temperature are never experienced here. Decatur lies midway between the heat of the extreme South and the severe cold of the North. The nights are always cool and pleasant. The winters are mild. Potatoes and other early vegetables are planted in January and February, and mature and come into market about the time people are making their gardens in the North. The mortuary statistics prove the climate to be very healthful. Yellow fever was brought to Decatur from Florida in 1888, and lodged in the old town, owing to the tearing up of streets for the purpose of ballasting, but this will be guarded against in future. New Decatur was not affected. The water supply is abundant, and of the purest quality. Within a few miles of Decatur are famous mountain resorts, delightful places for pleasure seekers and homes for invalids, including the Monte Sano Hotel, situated on a mountain 1700 feet above the sea level, overlooking the quaint old town of Huntsville, celebrated for its wealth and social refinement, and its wonderful spring. From this mountain is to be seen a panorama of picturesque scenery rarely equalled.

Adjacent to Decatur in the Tennessee Valley are some of the finest farming lands in the world. The soil is a rich mineral, producing luxuriant crops of every grain, vegetable and fruit of the temperate zone, and is especially adapted to wheat, corn, oats, the best of grasses, garden products, cotton and tobacco. Wild lands can be bought at very low prices, and improved farms that will compare favorably with the best in Ohio, Indiana, and Pennsylvania, at moderate prices. Land can be rented for truck farms at from \$3.00 to \$5.00 per acre, and the crops find ready sale at home or for shipment North at remunerative prices. Labor for farm purposes is cheap and easily procured. The special advantages of Alabama for stock raising are worthy of attention, both as regards climate, abundance of native grasses and water, and the advantages of markets.

As regards the great iron industry, which is attracting the attention of the civilized world to the "New South," the location of Decatur is very favorable for the manufacture of iron at low cost. Iron ore for the manufacture of ordinary charcoal or coke iron is laid down here from the iron districts south of Decatur at \$1.85 per ton. Within easy distance are abundant supplies of fuel and limestone, and the very best charcoal is manufactured here. Ordinary pig iron can be manufactured at a cost not

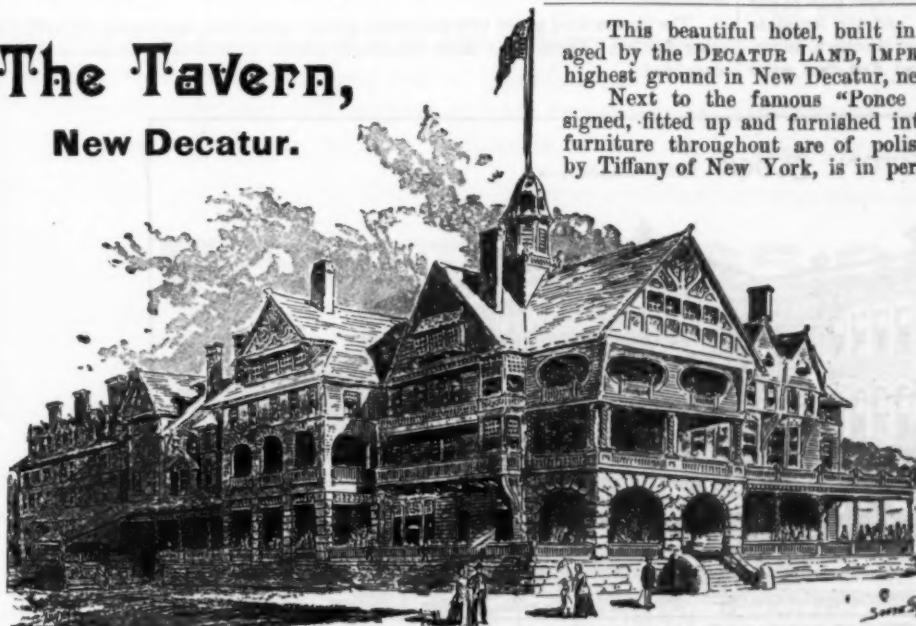
exceeding \$11.00 per ton, and car-wheel iron at \$14.00. The inducements for establishing foundries, forges, rolling mills and other works for the manufacture of the enormous future production of iron in Alabama are not surpassed at any other point. Coal for manufacturing purposes is now delivered in Decatur by rail from the great Warrior coal fields for \$1.85 per ton. The mines up the river are preparing to deliver coal in barges, which will reduce the price. In the production of coke, Alabama ranks second only to Pennsylvania. At or near Decatur can also be obtained the best of limestone, asphalt, building stone, fine marbles and granite, sand for glass making manganese fire clay, and the finest of clay for brick.

There is no more favorable location for cotton mills than at Decatur, the advantages for procuring the raw material and labor, and in the way of freights, being unsurpassed.

Adjacent to Decatur is a wealth of the finest timber in the world, consisting of extensive pineries, and immense forests of oak, walnut, poplar, ash, cherry, and gum. Decatur is one of the largest hard-wood producing centers in the South, and is above all things especially adapted for every description of wood manufacture.

The facilities for transportation are already excellent, and will soon be unsurpassed. Two trunk lines cross each other at Decatur, the Louisville & Nashville, and the East Tennessee, Virginia & Georgia. Two more roads are in course of construction. Thirty rivers will be accessible by steamers after the completion of the Government works at Mussel Shoals, below the city, in June, 1889, and the Tennessee River will be opened to navigation from Knoxville, Tenn., to the Ohio and Mississippi. As the "long-haul" clause of the Inter-state Commerce Law does not apply to places located upon navigable waters, this will result in active competition between the railroads and steamboats. The railroads at Decatur have built switch tracks through the manufacturing districts of the city, and a company has been formed to build a belt line. There is no better location in the United States for any kind of manufacture, especially wood, iron and cotton manufactures. There are also great opportunities for investment in building, for sale or for rent. There is a constant demand for the best skilled and common labor at good wages. On the 11th of January, 1887, the Decatur Land, Improvement and Furnace Company was organized for the promotion of the interests of Decatur, and they can point with pride to what they have accomplished. Under the direction of skilled engineers, landscape artists and architects, imported from the Eastern cities, they have laid out a beautiful city adjoining Decatur, known as New Decatur, with a thorough system of drainage, sewerage and water supply. They have increased the population from 1,200 to 7,000. They cordially invite every kind of productive industry to come here, assuring them liberal encouragement.

The Tavern, New Decatur.



This beautiful hotel, built in the picturesque Queen Anne style, is owned and managed by the DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. It is situated on the highest ground in New Decatur, near the company's new Union Depot.

Next to the famous "Ponce de Leon" in Florida, it has the most elaborately designed, fitted up and furnished interior of all the Southern hotels. The wainscoting and furniture throughout are of polished Alabama oak, and the frescoing, which was done by Tiffany of New York, is in perfect harmony with the surroundings. The whole house

is a marvel of artistic taste, cosy comfort and exquisite cleanliness. It is lighted throughout by electricity. Externally, the spacious verandahs and porches remind the traveler of the hotels at the best class of summer resorts. Massive arches of handsome stone at the entrance porches add an element of solidity to the general appearance. At present the house can accommodate 125 guests with ease. In the near future the original plan will be carried to completion, by adding a wing of the same design, and so doubling the capacity. No feature of this unique establishment will excite more favorable comment than the bill of fare, the cookery and the service. The traveler will find the dining room an oasis in the desert of his experience with the average of even first-class hotels. The object of the Land Company is not that of the ordinary landlord, simply to make money, but to attract and please. "The Tavern" is intended to be and is a trump card in advertising Decatur.

For Maps, Illustrated Pamphlets and Specific Information, Address

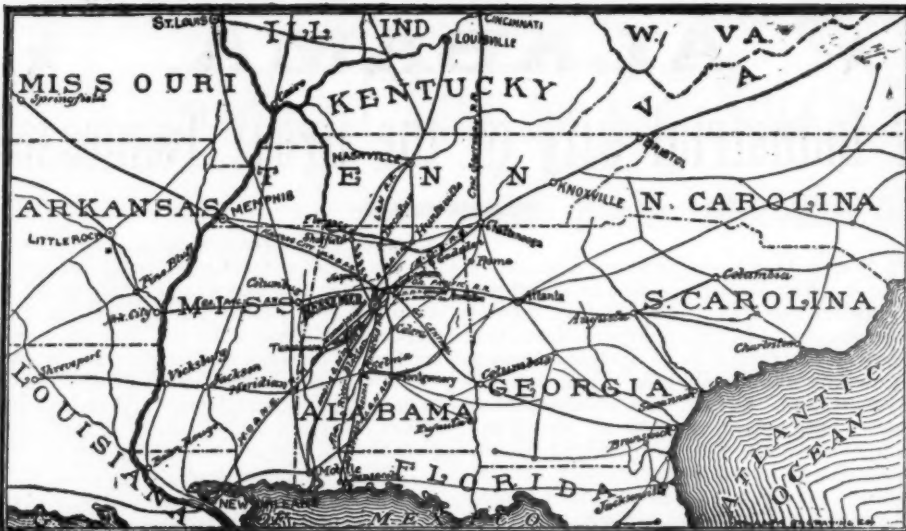
The Decatur Land, Improvement & Furnace Company

NEW DECATUR, ALA.

BESSEMER, ALA.

WHERE IS BESSEMER?

Located according to its latitude and longitude, Bessemer is in 33 deg. 30' North latitude and 87 deg. West longitude from Greenwich. Its position in the State of Alabama is just above its center and about midway between its eastern and western boundaries. Its position in the Southern States is a noticeably central one. It is midway between Montgomery and Decatur, between Meridian and Chattanooga, Mobile and Nashville, Savannah and Memphis, New Orleans and Louisville, all of which will readily appear from the map published herewith. So far as its geographical location is concerned it could not well be more central, more on the lines of communication and transportation between the leading and principal commercial and manufacturing centers in the South. It has lines of railway leading direct to Texas, via Vicksburg and Shreveport and via New Orleans; to Gulf ports, directly to New Orleans, to Mobile and to Pensacola; to all of the Atlantic ports and to the North, Northwest and West. No city of its age was ever so favored with so admirable, comprehensive and extensive a system of railway transportation.



THE RAILWAYS OF BESSEMER.

In an area of four blocks, nine lines of railways center:

The Alabama Great Southern R. R.
The Louisville & Nashville Min'l Line.
The Bessemer & Huntsville R. R.
The Georgia Pacific R. R.
The Kansas City, Memphis & Bessemer R. R.
The Bessemer & Tuscaloosa R. R.
The Bessemer Dummy Line (standard gauge).

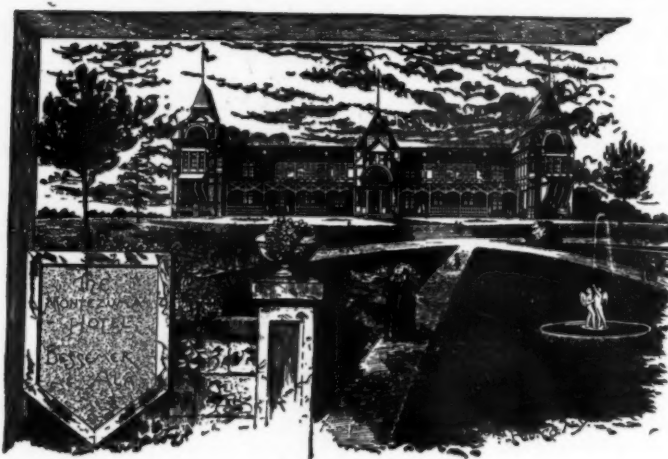
All of these lines are running to Bessemer. The Bessemer & Huntsville is completed as far as Village Springs, forty miles on the way up Murphree's Valley, with its ultimate terminal point at Huntsville. It is being rapidly extended.

The Bessemer & Tuscaloosa is completed to Woodstock, a distance of thirty miles, lacking only eighteen miles of reaching Tuscaloosa. At Woodstock this line connects with the Blocton Coal Mines Railway.

The lines of the Bessemer, Selma & Pensacola R. R. and Mobile & Bessemer R. R., now under contract and in process of construction, both center in this area.

The Sheffield & Bessemer R. R. is projected to Bessemer. It is now built as far as Jasper, forty miles northwest of Bessemer.

On the 12th of April, 1887, the first lot was sold in Bessemer; on the 15th of the following September the place was incorporated as a city, having then a population of 1,500 people. At this time, 1st September, 1888, it has a population of 3,500. It has over 400 different structures, some of them business blocks that would highly credit a city of a hundred thousand population. Over two million dollars so far have been invested in improvements. It has completed the largest rolling mill plant in the South, and two of the largest



MONTEZUMA HOTEL, 194x150, OPENED NOV. 1, 1887.

iron furnaces, extensive foundry and machine shops and planing mills. Five more iron furnaces are under contract, three of them with foundations already being laid. An enormous furnace factory, machine shops and boiler works are being located, and will construct the five furnaces mentioned. An enormous fire brick, tile and terra cotta plant is being established; has already commenced the manufacture of fire brick and will regularly employ 200 hands.

WHY DOES BESSEMER GROW SO RAPIDLY?

Because it presents opportunities for the investment of capital, the establishment of manufactories and industrial institutions and for labor, common and skilled, that are unusual and unrivalled. In Bessemer, pig iron is being made cheaper than at any other point in the United States. The iron ore, the coking coal and the limestone are almost within a stone's throw of the city. The site of Bessemer is superb, unusually attractive, unimpeachably healthy, with thorough drainage and first-class water

works. It is already a leading manufacturing point, and is destined to become one of the principal manufacturing centers in the South. Schools and Churches are already established.

The illustrations are of two structures already completed, one costing \$125,000 the other \$40,000. There are a large number of similar structures in Bessemer already completed.



CHARLESTON BLOCK, 300 FEET FRONTAGE, 2d. AVE., BET. 18TH AND 19TH STREETS.

ANY INFORMATION CONCERNING BESSEMER WILL BE PROMPTLY FURNISHED BY THE

Bessemer Land & Improvement Company.

WM. BERNEY, President. H. M. McNUTT, Secretary.

FORT PAYNE, Alabama.

★ COME TO ★

The NEW ENGLAND CITY of the South.

Climate Unsurpassed. Abundance of Pure Water. Drainage Excellent.

No Better Point in the Union
For Safe and Profitable Investment.

Situated on the main line of the Cincinnati, New Orleans & Texas Pacific Railroad, fifty-one miles Southwest of Chattanooga, and ninety-one miles North of Birmingham.

Elevation is from 895 to 1,600 ft above the sea, and above fever districts.

DeKalb County is entirely free from debt; taxes light.
Most liberal encouragement given to industries of every kind.

Iron Furnace and Rolling Mill will be constructed immediately, and other industries of various kinds are under contract.

Correspondence solicited from those who contemplate coming into the South to establish any kind of manufactories.

The different industries will employ at least two thousand skilled workmen, which will secure a population of over ten

thousand, independent of the many industries contemplated.

Iron of the best quality can be manufactured at as low cost per ton as in any other locality in the South.

Coal and iron are being developed rapidly of a superior quality.

Fine timber abundant and wood-working machinery of every kind can be profitably employed at this point.

The Company is prepared to give every reasonable encouragement to manufacturers who will locate at this point.

✉ Correspondence solicited.

CAPITAL \$5,000,000.

OFFICERS.

President,	- - - -	COL. J. W. SPAULDING
First Vice-President,	-	HON. D. H. GOODELL
Second Vice-President,	-	HON. HENRY B. PEIRCE
Secretary,	- - - -	C. L. T. STEDMAN
Treasurer,	- - - -	F. H. TOBEY
Manager,	- - - -	C. O. GODFREY

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City, resides Fort Payne, Ala.

FORT PAYNE COAL & IRON COMPANY, Fort Payne, Ala.

SHEFFIELD, ALA.

The Iron Manufacturing Center of the South.

At the head of navigation, on the Tennessee River, Sheffield is the natural outlet for the mineral and manufacturing products of Alabama and the neighboring States seeking a water route to points on the Ohio and Mississippi Rivers, and to the Gulf of Mexico, as well as the best distributing point over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. Three Railroads already completed and in operation, and several others assured. Principal shops of the Memphis & Charleston Railroad, in which cars and locomotives are to be built, are under contract to be erected here. These will employ between four hundred and five hundred mechanics, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here, some of them being now under construction.

Five Completed Blast Furnaces,

HAVE A CAPACITY OF 700 TONS PIG IRON PER DAY.

Experts do not hesitate to say that iron can be manufactured more cheaply at Sheffield than at Birmingham, and its river transportation facilities will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

The quality of the iron produced is pronounced by consumers to be the best from any furnaces in the South.

The following are among the Corporate and Private Enterprises belonging to Sheffield:

- 1 The Sheffield Land, Iron & Coal Company, capital \$1,000,000.
- 2 The Sheffield & Birmingham Coal, Iron & Railroad Company, capital \$7,500,000, owners and operators of three blast furnaces, the Sheffield, the Sheffield & Birmingham Railroad, coke ovens and coal mines near Sheffield.
- 3 The Sheffield Furnace Company, capital \$150,000; assets \$500,000.
- 4 The Lady Enaley Furnace Company, capital \$300,000.
- 5 Enterprise Publishing Company, capital \$25,000; publishes daily paper with associated press report and weekly paper.
- 6 The Electric Light and Gas Fuel Works, \$25,000.
- 7 The Sheffield Ice Company, capital \$25,000.
- 8 The Sheffield Manufacturing Company, \$30,000.
- 9 The Sheffield Contracting Company, \$80,000.
- 10 The Eureka Brick & Lumber Company, \$30,000.
- 11 The Sheffield Furniture Manufactory.
- 12 The Howard & Busch Brick Company.
- 13 The Sheffield Bakery and Bottling Works.

- 14 The Sheffield Mineral Paint Company, \$50,000.
- 15 The Sheffield Agricultural Works, \$40,000.
- 16 The Sandstone Quarry Company.
- 17 The Sheffield Cotton Compress Company, \$60,000.
- 18 Millar Brothers, Steam Laundry.
- 19 Water Works, already expended \$30,000.
- 20 Sheffield Street Railway Company, \$50,000.
- 21 Sheffield & Tusculum Street Railway Co., \$50,000.
- 22 First National Bank, \$100,000.
- 23 Cleveland Hotel Company, \$50,000.
- 24 Sheffield Hotel Company, \$120,000.
- 25 East Sheffield Land Company, \$500,000.
- 26 Hull & Keller's Fern Quarries.
- 27 Vorhees' Galvanized Iron Cornice Factory.
- 28 The Sheffield Quarries.
- 29 Mobile Real Estate Company, \$50,000.
- 30 Sheffield Real Estate Company, \$125,000.
- 31 Sheffield & Mobile Improvement Company, \$100,000.
- 32 Sheffield Stove Works, \$50,000.
- 33 Henderson Milling Company, \$100,000.
- 34 Globe Iron & Brass Works, \$10,000.

- 35 Knowles Knitting Mill, \$30,000.
- 36 Sheffield Tapestry Works, \$40,000.
- 37 Robbins Machine Shop and Foundry, \$50,000.
- 38 Sheffield Cotton Mill, No. 1, \$50,000.
- 39 Owen Pink Mixture Company, \$100,000.
- 40 Bell Telephone & Telegraph Company.
- 41 Fould's Shoe Factory, \$20,000.
- 42 Enterprise Wood-working Company, \$30,000.
- 43 The Sheffield Harness & Saddlery Company, \$20,000.
- 44 Principal Shops of the Sheffield & Birmingham R. R.

Aside from the foregoing, the following are in course of construction and may be considered positive: Principal Shops of the Nashville, Florence & Sheffield Division of the Louisville & Nashville Railroad.

Reasonably certain to be secured in the near future are the following, in regard to which negotiations are pending: A Rolling Mill, a Large Machine Shop, a Cotton Mill, a Large Steel Plant.

GOOD WATER.

Free Public Schools and Churches

Drainage Excellent. Health and Climate Unsurpassed.

Splendid Opening for Men of Push and Energy.

No Better Point for Profitable Investment.

— NO "OLD FOG" ELEMENT HERE. —

Sites for Manufacturing Enterprises,

AND FOR FREE PUBLIC SCHOOLS AND CHURCHES.

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; August 21st, 1887, by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations. Present estimate (August, 1888) fully 3,500. Four years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three story brick business houses, and one and two story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants. Limestone of excellent quality for fluxing iron in unlimited quantities at the furnaces' sites. First class building stone and brick clay abundant. Rich and extensive deposits of Brown Hematite iron ore within twenty miles, along the lines of two Sheffield railroads, which, by actual results in the furnaces, yield above 50 per cent. metal. Iron of high grade is being made with a pound of coke to a pound of metal—a result never before accomplished with Southern ores and coke. The Sheffield & Birmingham Railroad runs through the heart of the Warrior Coal Fields, which abound in first-class Coking, Steam, Gas and Grate Coal. Timber is abundant and cheap. The Memphis & Charleston Railroad, Sheffield & Birmingham Railroad, and Nashville, Florence and Sheffield branch of the Louisville and Nashville Railroad are now in operation into Sheffield. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the best combined river and railroad transportation center in the South. Every merchant and every established manufacturing enterprise is doing a profitable business. More are needed. For further information address

WM. L. CHAMBERS, Vice-President and Manager,

SHEFFIELD LAND, IRON & COAL COMPANY, - - - SHEFFIELD, ALA.

Fort Worth, Texas

➤ **THE CHICAGO OF THE SOUTHWEST.** ◀

Population in 1876, **1,100**. Population 1889, **32,000**. And is to-day the Largest Railroad Center of its Age in the World, and is the only gate through which everything must pass to the **FAMOUS PANHANDLE** of Texas, the greatest wheat-producing country in the world.

Fort Worth needs and will give substantial and hearty encouragement to Cotton and Woolen Mills, Iron Works and Machine Shops, Paper Mills, Tanneries, Factories for the manufacture of Wagons and Carriages, Furniture and all kinds of Woodenware, and all other manufactures.

WE HAVE THE RAW MATERIAL IN ABUNDANCE.

Fort Worth possesses advantages for Investors, Manufacturers, Merchants, Professional Men and Home-Seekers such as no other city in the Southwest can offer.

Fort Worth is 700 feet above the sea, and its Drinking Water is supplied by about 200 Artesian Wells, and from the manner in which

The Panhandle is Filling Up By Thrifty Farmers,

it is safe to predict, from the fact that Fort Worth alone is the entrepot of that great country, that she will, in twenty-five years, be

The Largest City in the United States

SOUTHWEST OF CHICAGO.

✧ Excepting, possibly, St. Louis and Kansas City. ✧

WHAT FORT WORTH HAS:

She has Seven National Banks, with a working capital of over \$2,000,000.00.

She has one of the Best Holly Water Works System for supplying the City.

She has one of the best Fire Departments in the State.

She is one of the Healthiest Cities in the world.

She has 20,000 acres of Coal within ninety miles of the City.

She has mountains of Purest Iron within 150 miles.

She has system of Gas Works, and first-class Electric Plant Building.

She is erecting finest Board of Trade Building in the Southwest.

She has a complete system of Electric Street Railway.

She has eighteen miles Sewerage.

She has seventeen Churches.

She has forty miles of Graded streets.

She has between \$100,000 and \$200,000 in Public School Buildings.

She is handling nearly 40,000,000 pounds Cotton annually.

She has large Grain Elevators with capacity of 500,000 bushels.

She has Flour Mill capacity 1,000 barrels per day.

She has a Social Club with the finest Library Rooms in the State.

She has \$1,000,000 worth New Buildings in course of construction and under contract.

Fort Worth is the Most Public Spirited,

Go ahead, stirring City in the Southwest, and its citizens have given away over \$1,000,000 in donations to Railways and other Corporations to locate here, as the Constitution of the State precludes the voting or granting of Subsidies.

THE TEXAS SPRING PALACE,

A Grand Karporama of Texas. A Unique and Novel Creation, illustrating

Her Unlimited Resources, her Boundless Possibilities, her Wealth and Progress.

OPEN FROM MAY 29th to JUNE 19th

For any further information address

Secretary of Board of Trade,

FORT WORTH, TEXAS.

Morristown, Tenn.

The Plateau City of the Great Valley of East Tennessee

is beautifully located on a plateau of Bay's Mountain, about equi-distant from the Cumberland Mountains which bound East Tennessee on the northwest, and the Alleghany Mountains which bound it on the southeast, and is 300 feet above Holston River, which washes the north base of the plateau three miles from the city. Its mean elevation above sea level is about 1,350 feet, while the hills and mountains immediately surrounding it rise to an altitude of 1,935 feet, affording views of surprising extent and grandeur, and at the same time so modifying the temperature that the thermometer rarely registers higher than 90° in summer or lower than 10° in winter. Its drainage is admirable, and malaria is unknown. It has nearly trebled its population since 1880, having now about 4,000 inhabitants. It is the commercial and business center of the richest and most extensive agricultural district in the State, where all the cereals and all the grasses

and tobacco are grown to perfection, and where fruits and berries abound. It has hundreds of thousands of acres of uncultured forests accessible to it, abounding in Poplar, Pine, Hemlock, six varieties of Oak, Chestnut, Hickory, Cedar, Maple, Birch, Beech, Sycamore, Gum, Locust, Laurel, Buckeye, Mulberry, Ash, Cherry and Walnut. The Celebrated East Tennessee Marble underlies a part of the city, and it is surrounded with rich deposits of Iron Ore, Manganese Ore, Zinc Ore and Lead Ore. It has been said by one who has made a study of the subject, that within a radius of 50 miles around Morristown every variety of iron ore in the United States can be duplicated, and a coke can be made equal to Connellsville coke. We claim without hesitation that Morristown has in its immediate vicinity richer mineral ores, and a greater variety of them, than any city on the Continent.

MORRISTOWN

has Railroad Facilities equal to any city between Lynchburg and Chattanooga, and they will be speedily increased by the completion of the Carolina, Cumberland Gap & Chicago Railway, making the shortest possible railway route between the great cities on the Ohio River, Cincinnati and Louisville, and the seaboard cities, Charleston, Port Royal and Savannah. Besides, the Baltimore & Ohio Railway will probably extend a branch to it from Lexington, Va., and the Tennessee Midland will in all probability be built to Morristown, and a line be built giving direct connection with Atlanta.



MAP SHOWING RELATION OF MORRISTOWN TO THE COUNTRY AT LARGE.

MORRISTOWN

has a citizenship composed almost exclusively of native born Americans. It boasts a splendid system of Graded Schools, Five Commodious Brick Churches, the finest Courthouse in Upper East Tennessee, an Opera House that will seat 600 people, two Solid Well Managed Banks, a flourishing Building and Loan Association, two of the Largest Commercial Flouring Mills in the South, Stove Works, an Agricultural Implement Factory, two Wood-working Factories, a Tobacco Factory, a Carriage and Wagon Factory, and many industries of lesser note.

It is lighted with electricity, and has water works under contract, and is now inaugurating a system of street railways. Its climatic advantages, its unsurpassed record for healthfulness, its abundance of pure water, its central and beautiful location, its transportation facilities, its fruitful agricultural surroundings, its contiguity to rich and exhaustless fields of iron, manganese, zinc and lead ores, marble, coal and timber, mark it as a place destined to be the commercial, manufacturing and railway emporium of Upper East Tennessee, Western North Carolina and Southeastern Kentucky.

To expedite this destiny the city authorities have wisely exempted from taxation for ten years all manufacturing establishments that will give employment to fifteen or more persons, and the county authorities have done the like, so that manufacturing establishments will be exempt from all taxation for ten years, except the merely nominal tax for State purposes. There has been no "boom" or inflation of prices at Morristown, and, as it possesses within itself and contiguous to it almost every element of wealth, it now presents the most inviting field for investment of any city in the South.

Persons who may desire fuller information can obtain it by calling on or addressing

MONTVUE LAND COMPANY

POSTOFFICE BUILDING, — MORRISTOWN, TENNESSEE.

CONSTRUCTION DEPARTMENT

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" column.

†In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

THE industrial activity throughout the South is steadily on the increase, and the investment of outside money is rapidly growing. An English syndicate has purchased 330,000 acres of timber land in Florida and Alabama and several very large saw mills at an aggregate cost of \$1,250,000. The New England excursion to Denison, Texas, last week resulted in the investment there of upwards of \$2,000,000, and among the new enterprises to be started is a 50,000-spindle cotton mill, extensive iron and steel works, etc. The development of Bessemer iron ore in Llano county, Texas, is to be followed by the building of a town at Llano, for which a company with a capital stock of \$1,500,000 has been organized to erect a \$150,000 furnace, \$50,000 car-wheel works, \$50,000 electric-light works, \$50,000 water and ice works, \$50,000 hotel, etc. These are the indications of the coming of a great industrial boom in Texas, of which Denison and Llano are to be the leaders. Jefferson, Texas, has also organized a \$1,000,000 steel and iron company. Florence, Ala., keeps up its record of one or two new industries every week, and this week has secured the contract for the removal of another large cotton mill, costing \$200,000, from Philadelphia, making the second Philadelphia cotton mill to move to that point. Spartanburg, S. C., comes up with a \$500,000 cotton mill to have 30,000 spindles, and Fort Payne, Ala., "New England's Pet," is organizing a \$250,000 cotton mill company. These facts show how great is the activity in cotton mill building in the South, for added to these new mills are the \$500,000 mill reported last week at Galveston, Texas; the \$400,000 mill now moving from Philadelphia to Florence, Ala.; \$50,000 mill company at Woodruff, S. C.; \$20,000 mill at Texarkana, Ark.; doubling of cotton mill at Newnan, Ga., making an increase of from 5,000 to 10,000 spindles; cotton mill at Gastonia, N. C.; 1,200-spindle mill at Jonesboro, N. C.; one at Scotland Neck, N. C.; a third mill at Florence, Ala., reported to cost \$200,000, making three new mills at a cost of \$800,000 at that point; \$100,000 twine and cordage factory at Galveston; \$500,000 enlargement of cotton mill at Atlanta, Ga., to include 18,000 spindles and 570 looms; \$100,000 mill at Greenwood, S. C.; rebuilding of cotton mill at Savannah at a cost of \$100,000, while other companies are being formed at Charlotte, Raleigh, N. C., and many other points—all of these enterprises mentioned having been definitely announced within the last three weeks. Among other enterprises reported for the week are a \$250,000 furniture factory at New Orleans; \$100,000 boot and shoe company at Baltimore; \$300,000 company to build the rolling mill at Fort Payne, Ala.; at Cumberland Gap, Tenn., a \$550,000 hotel is to be built as a winter and summer resort,

and furnished at a cost of \$150,000, the plans for which are now being made. These few facts from this week's issue of the MANUFACTURERS' RECORD are signs of the times which can be read by all.

ALABAMA.

Anniston—Dummy Line.—The Minnelula Lake & Oxford Dummy Line Co. have let contract for grading their road, lately mentioned, to George Harris, and for trestle and bridge building to F. Larned. Work will commence at once.

Anniston—Water Works.—The Anniston City Land Co. will enlarge their water works, increasing the pumping capacity to 5,000,000 gallons daily, previously reported. The improvements will cost \$150,000.

Anniston—Iron Foundry.—A large foundry will, it is rumored, be built. The Anniston City Land Co. can give information if anything is done.

Anniston—Saw Mill.—John H. Cates will rebuild his saw mill near Anniston, reported last week as damaged by a boiler explosion.

Anniston—Oil Mill.—Percy McGeorge, of Philadelphia, Pa., previously reported as contemplating establishing a cotton-seed oil mill in the South, is investigating with the view to locating it in Anniston. The capacity of the mill is to be 45 tons daily.

Attalla—Coal Mine.—Messrs. Dobbs, Campbell and others are opening a coal mine 2 miles from Attalla.

Auburn—Printing, &c.—The Auburn Publishing Co. has been organized with J. A. Holifield, president; W. S. Harris, secretary, and R. W. Barton, editor, to publish a newspaper.

Birmingham—Dummy Line.—The Birmingham Powderly & Bessemer Railway Co. have decided to issue the \$100,000 of bonds, previously reported, for the construction of their dummy line. They will hold a meeting on May 25 to consider increasing capital stock to \$250,000.

Birmingham—Railroad.—The Georgia Pacific Railroad Co. will build a branch road from North Birmingham to Coalburg.

Birmingham—Coal Mines, Coke Ovens, &c.—The Sloss Iron & Steel Co., in addition to opening the two coal mines near Coalburg, mentioned last week, will open another mine 6 miles from Coalburg and one on Field's prong of Prudes creek. The output of the four mines is expected to reach 1,500 tons within 12 months. They will build 125 coke ovens and a large mining plant.*

Bridgeport—Saw Mill.—The North Alabama Lumber & Manufacturing Co. are erecting a saw mill.

Brierfield—Railroad.—It is rumored that the East Tennessee, Virginia & Georgia Railroad Co. (office, Knoxville, Tenn.) contemplate building a branch road from some point on their Selma division, probably Brierfield, to Birmingham, and have surveyors in the field.

Columbia—Water Supply.—An artesian well is being sunk and pipes will be laid to supply the town with water.

Columbia—Iron Works.—Messrs. Blackwell, Jones and Brantwell have purchased the Alabama Iron Works and increased the capital stock to \$30,000.

Decatur—Car-wheel Works.—The Decatur Car Wheel Co. will double their plant and do a general foundry business.

Decatur—Electric-light Plant.—The Thomson-Houston Electric Co. have bought out the electric-light companies of Decatur and New Decatur and will put in a new plant to cost \$25,000. Capacity will be 60 arc lights. A building 50x140 feet will be erected.

Decatur—Horse-nail Factory.—The Decatur Horse-nail Co. will put two additional machines in factory.

Decatur—Extract Works.—The American Oak Extract Co. have lately put in additional machinery.

Demopolis—Oil Mill.—George Leder has purchased a site to build a 50-ton cotton-seed oil mill, but will not have it in operation in time for the coming crop.

Ensley—Brick Works.—F. W. Farquar is investigating the cost of brick machinery with a view to starting such works.

Florence—Shoe Factory.—The Sweetwater Shoe Manufacturing Co. have doubled capacity of factory.

Florence—Cotton Mill.—A \$300,000 cotton mill is to be moved from Philadelphia, Pa., to Florence by Jefferson James and others.

Florence—Lumber Mills.—The Iowa Land & Lumber Co. will enlarge their lumber mills.

Fort Payne—Cotton Mill.—A \$350,000 stock company is being organized to build a cotton mill. The Fort Payne Coal & Iron Co. can give information.

Fort Payne—Planing Mill.—A planing mill is being built.

Fort Payne—Iron Furnace.—The Fort Payne Coal & Iron Co. will commence work on their iron furnace, previously mentioned, within 90 days.

Fort Payne—Rolling Mill.—The Fort Payne Rolling Mill Co., reported last week as being organized by Messrs. Brown and Train, will commence work on their mill within 90 days. Capital stock is about \$200,000.

Geneva—Saw Mill.—J. F. Beal & Co. have started a new saw mill.

Guntersville—Oil and Gas.—A Michigan company have leased 3,400 acres of land in Brown's valley and are preparing to drill for oil, gas and minerals.

Huntsville—Rolling Mill.—Parties are investigating with the view to building a large rolling mill.

Jacksonville—Electric-light Plant.—There is talk of erecting an electric-light plant. If anything is done the Jacksonville Land Co. can probably give information.

Jacksonville—Ice Factory.—The erection of an ice factory is being agitated.

Jacksonville—Land.—Negotiations are being made for the purchase of the property of the Jacksonville Mining & Manufacturing Co., embracing about 13,000 acres of mineral and town lands.

Kymulga—Railroad.—Heacock & Ryser are building a railroad 3 miles long to their iron ore beds.

Livingston—Cotton Mill.—Efforts are being made to organize a company to build a cotton mill. Brown Bros. can probably give information if anything is done.

Lomax—Saw Mill.—C. J. Stewart is building a new saw mill.

Luverne—Railroad.—The citizens of Covington county have raised \$50,000 to encourage the extension of the Northwestern & Florida Railroad (office, Montgomery) from Luverne to that county.

Mobile—Dummy Line.—The Mobile & Spring Hill Railroad Co. will rebuild the track of their street railroad and put on dummy engines.

Mobile—Railroad.—The Central Railroad Banking & Co. (office, Savannah) will, it is reported, extend their Fort Gaines branch road to Mobile via Skipperville, Deans and Elba.

Montgomery—Railroad.—The Montgomery & Meridian Railroad Co. has been char-

tered to build a railroad to Meridian, Miss., 300 miles.

Shelby—A land improvement company will be organized by the Shelby Iron Co. to build a manufacturing town, etc.

Shelby—Iron Furnace.—The Shelby Iron Co., previously reported as to remodel their No. 1 (charcoal) furnace, have commenced tearing down the old furnace.

Sloss—Artesian Well.—The Sloss Iron & Steel Co. will sink an artesian well and have let contract to the North American Mining Co., of New York. J. H. Adams, superintendent, can give particulars.

Tuscaloosa—Compress.—J. W. Soady, of Shreveport, La., is endeavoring to organize a stock company with a capital of \$30,000 to build a cotton compress.

ARKANSAS.

Arkansas—Timber Lands.—Williams & Co., of Memphis, Tenn., are purchasing timber lands.

Batesville—Water Works.—The Batesville Water-power & Irrigation Co., capital stock \$50,000, has been organized to build water works, probably the works previously mentioned. Will start work within 30 days.

Camden—Planing Mill.—C. C. Henderson is interested in the planing mill reported last week as being built.

Helena—Railroad.—The Louisville, New Orleans & Texas Railway Co., mentioned in issue of April 13 as incorporated, will build a railroad commencing at the west bank of the Mississippi river, not more than 5 miles long.

Hot Springs—Furniture Factory.—A Northern syndicate has purchased 80 acres of land and will erect a large furniture factory. Wm. Carthey can give information.

Lead Hill—Copper Mines.—Phil Moore, Dr. Bolinger, W. A. Pamphrey and Ross Cantrell have organized a stock company to develop copper ore.

Lead Hill—Copper Mines.—J. C. Fain, S. W. Pierce, Henry Redus, George W. Thompson and others have organized a stock company to develop copper mines. Have commenced work.

Lewisville—Wagon Factory.—Holbert & Lyle will, it is reported, establish a wagon factory.

Little Rock—Railroad.—H. J. Campbell, chief engineer of the Central Arkansas Railroad, and H. G. Martin are locating a railroad projected from Little Rock to Kansas City, Mo.

Little Rock—Shops.—The Arkansas Industrial University trustees are considering the erection of new shops for the mechanical department to cost \$5,000.

Mammoth Spring—Water Works.—The Mammoth Spring Water, Light, Electric Plant & Motor Co. has been organized with Robert Green, president; Thos. Star, vice-president, and E. F. Brock, secretary, to build and operate water works, electric-light plant and a street car line. The capital stock is \$50,000.

Pine Bluff—Bagging Factory.—A stock company will probably be organized to establish a pine straw bagging factory. The mayor can give information.

Russellville—Water Works.—The city is investigating with the view to building a system of water works. The mayor can give information.

Springdale—Woolen Mill.—W. B. Hazton & Co. have enlarged their woolen mill.

Swan Lake—Railroad.—The Pine Bluff & Swan Lake Railroad Co. (office, Pine Bluff) will probably extend their road toward Helena or Memphis.

Texarkana—Railroad.—Parties have offered to build the Texarkana Northern

Railroad, previously mentioned, if given a bonus of \$40,000.

FLORIDA.

Apalachicola—Shingle Mill.—The Florida Shingle Co., lately mentioned as organized at Mobile, Ala., will build their shingle mill near Apalachicola. Capacity will be 300 M shingles daily.

Dade City—Saw Mill.—Rand & Drew are erecting a large saw mill at Passdena, 3½ miles south of Dade City.

Gainesville—Timber Lands.—Darius N. Avery, of Detroit, Mich., has purchased 13,240 acres of timber lands near Gainesville.

Kissimmee—Laundry.—Town & Porch are considering the establishment of a steam laundry.

Jacksonville—Cigar Factories.—It is reported that parties will establish two or more cigar factories, investing from \$75,000 to \$100,000 if given a bonus of \$10,000. Sigo Myers can give particulars.

Orlando—Publishing.—A stock company has been organized to publish the "Record," with Andrew Johnson, president; C. A. Boone, vice-president, and Chas. A. Wimer, editor.

Pensacola—Furniture Factory.—A cabinet manufacturing establishment will be located at 18 W. Intendencia street. John Schubert is interested.

Pensacola—Pants Factory.—M. Levy will start a jeans pants factory.

Pensacola—Planing Mill.—A planing mill will, it is reported, be established. Johnson & Forbes can give information if true.

Sauble—Brick Works.—The Keystone Brick & Tile Co. have enlarged their works, adding a larger engine, etc.

St. Augustine—Railroad, &c.—The survey of the Atlantic, Gulf & Havana Railroad has been completed to St. Augustine. Wharves will be built at the mouth of the San Sebastian river.

St. Augustine—Mill.—The English mill has been enlarged.

St. Francis—Saw Mill.—A new saw mill will, it is reported, be built.

Sumterville—Saw Mill.—Dr. A. A. Stivender has started a saw mill.

Tampa—Cigar Factory.—Garcia & Co. are the Chicago parties lately reported as negotiating to remove their factory to Tampa. They will build a large factory at once.

Windsor—Moss Factory.—Gardner & Co. are proprietors of the moss factory reported last week as being built. It is 25 or 30x100 feet, part two stories.

GEORGIA.

Americus—Electric Plant.—The electric plant reported last week as to be put in by the Americus Light & Power Co. will be for arc and incandescent lighting, and to furnish power for the Americus Street Railway Co.'s electrical railroad, lately reported.

Americus—Land.—A party has secured a 30 days' option of 1,700 acres of land near Americus.

Atlanta—Cigar Factory.—A. L. Cuesta has enlarged his cigar factory.

Atlanta—Railroad.—The Chattanooga, Rome & Columbus Railroad Co. (office, Rome, Ga.) will, it is said, extend their road to Atlanta if the Georgia Improvement Co. extends the Atlanta & Florida Railroad.

Atlanta—Rolling Mill.—A rolling mill to employ about 600 hands will, it is reported, be moved to Atlanta. The secretary Atlanta Manufacturers' Association can probably give information.

Atlanta—Box Factory.—Wellhouse & Sons will rebuild their paper-box factory reported last week as burned.*

Atlanta—J. W. English, E. J. Willingham, J. C. Hendrix and others are organizing the Equitable Land & Improvement Co., to have a capital of \$250,000.

Bainbridge—Electric-light Plant.—The city has let contract to the Edison Electric Co. for the erection of the electric-light plant previously mentioned. The mayor can give information.

Brunswick—Reservoir.—The Brunswick Water Co. will build an additional reservoir 25x50 feet and 13 feet deep.

Carrollton—Sash Factory, &c.—T. F. Marlow & Bro. have bought a sash, door and blind factory at Whitesburg, and moved machinery to Carrollton.

Carrollton—Sash, Door and Blind Factory.—Brooks & Aycock, of Whitesburg, will build a sash, door and blind factory in addition to erecting the planing mill and cotton gin lately mentioned.

Carrollton—Foundry, &c.—J. H. Strope, of Lyons, Iowa, reported last week as to build a foundry and pump works, has made a proposition to build such a plant. If accepted, will want new lathe, planer and drill press.

Cartersville—Mineral Lands.—Thomas Parks, of Nashville, and Mr. Buzbey, of Boston, Mass., have, it is reported, purchased the 17,000 acres of land which they obtained an option on two months ago for \$100,000.

Cartersville—Brick Works.—Brick works are projected. If anything is done Col. Blaisdell can probably give information.

Cartersville—Mining.—Geo. A. Veach, E. C. Freeman, J. D. Cunningham and others have incorporated the North Georgia Mining Co. with a capital stock of \$50,000.

Cartersville—Water Works.—The Jeter & Boardman Water & Gas Association, of Macon, previously reported as building water works, have chartered the Cartersville Water Works Co., capital stock \$25,000.

Chauncey—Dry-kiln, &c.—The A. B. Steele Lumber Co. have built a dry-kiln and put in additional machinery.

Columbus—Gas Works.—The Columbus Gas Light Co. will enlarge their works at a cost of \$20,000. Another holder of 70 M feet capacity will be built.

Columbus—Water Works.—A new water works company will probably be organized to build works for the suburbs of the city.

Columbus—Railroad.—The Columbus Southern Railroad Co. will, it is reported, push their road to completion.

Columbus—Brick Works.—The Georgia Midland Brick Co. has been incorporated with J. E. Belcher, president, and Frank Crabtree, secretary. Machinery is reported as ordered.

Dalton—Water Works.—R. J. McCamy, T. R. Jones and others are organizing a stock company to purchase the water works.

Douglasville—Mining and Railroad.—The Douglasville Mineral Land & Improvement Co. expect to develop their mineral lands at once. Have magnetic iron ore, mica, ochre, &c. They will form a company to build a railroad.

Gainesville—Water Works.—The city will build the water works referred to last week. F. M. Johnson, mayor, can give information.

Griffin—Granite Quarry &c.—The Central Railroad & Banking Co. (office, Savannah, Ga.) have purchased 55 acres of land from Dr. Geo. B. Beecher for \$4,125, and will develop granite to be used in ballasting their main stem from Savannah to Atlanta. They will build a side track to the quarry.

Griffin—Railroad.—E. C. Machen has received the contract for the extension of the Covington & Macon Railroad (office, Macon) from Griffin to Machen.

Hall's Mill—Iron Mine.—Col. Ledbetter, of Rome, will probably develop an iron mine.

Hall's Mill—Manganese Mine.—R. H. Couper is developing a manganese mine.

Lindall—Dummy Line.—It is stated that Mose Daniel is contemplating organizing a stock company to build a dummy line to Rome.

Machen—Compress.—A cotton compress will be built, it is reported. E. C. Machen can probably give information.

Machen—Electric-light Plant.—An electric-light plant will probably be erected. E. C. Machen can give information.

Macon—Knitting Mill.—The Georgia Hosiery Co., Limited, previously mentioned as to enlarge their knitting mill, will erect a new brick building, two stories, 175x50 feet. When completed 400 hands will be employed.

Madison—Bridge.—Chas. W. Baldwin will let contract May 23 for the construction of a bridge across the Appalachie river at Price's mill.

Milledgeville—Oil Mill.—The cottonseed oil mill previously reported will be built by the Milledgeville Cotton seed Oil Mill & Fertilizer Co., W. T. Conn, president.

Rogers—Railroad.—The capital stock of the Rogers & Summitt Railroad Co., lately mentioned as chartered, is \$250,000.

Savannah—Railroad.—The Savannah, Americus & Montgomery Railroad Co. will issue bonds to the amount of \$4,100,000 to extend their road.

Stockbridge—Gold Mine.—Walter Hightower has discovered a gold mine on his property and will develop same.

Stockbridge—Canning Factory.—It is proposed to form a stock company to start a canning and evaporating factory. John F. Bailey can give information.*

Taliaferro County—Tram-road, &c.—Thompson & Dean, of Birmingham, Ala., previously mentioned as opening iron ore mines, will build a tram-road from their mines to the Georgia Railroad.

Thomasville—Canning Factory.—A canning factory is projected.

Thomasville—Electric-light Plant.—J. W. Reid and others, previously mentioned as receiving franchise to erect an electric-light plant, have commenced work.

Yorkville—Gold Mine.—Capitalists will, it is reported, develop a gold mine and put in mining plant.

KENTUCKY.

Beattyville—The Three Forks Improvement Co. will commence grading the streets shortly.

Beattyville—Saw Mill.—Hogg & Flannery, reported last week as to move their mill from Proctor, will build a new saw mill.

Brandenburg—Natural Gas.—The Crown Natural Gas Co. has been organized with George H. Casperke as president and E. R. Boundran, secretary and treasurer. Authorized capital stock is \$1,000,000.

Brandenburg—Natural Gas.—The Brandenburg Manufacturing Co. are sinking a gas well. They have exclusive privilege for furnishing town with gas.

Brandenburg—Natural Gas, &c.—The Big Bend Gas & Oil Co. has been incorporated by S. B. J. H. and W. H. J. Creelius, J. P. Benham and J. K. Hallcroft, to develop gas, oil, salt water, rock, minerals, etc. The capital stock is \$1,000,000.

Catlettsburg—Saw and Planing Mill.—Thomas Bros. & Co. are erecting the saw and planing mill reported last week. Mill has been removed from Thomas' Mills, Tenn.

Cloverport—Sand Mine.—The Cloverport Oil & Gas Co. will probably mine glass sand.

Columbia—Publishing.—R. W. Musser will commence the publication of the "Herald" shortly.

Covington—Water Works.—The Ohio Valley Water & Contracting Co. has been chartered by H. E. Huntington, Epes Ran-

dolph and J. S. Walker, to supply small towns with water. The capital stock is \$50,000.

Covington—Sand Mine.—R. W. Jolly will probably mine glass sand.

Covington—Water Works.—H. E. Huntington, E. Randolph and Harvey Myers have incorporated the Washington Water Co., to build water works at Washington, O. The capital stock is \$150,000.

Elizabethtown—Natural Gas.—Ackerly, Sarnel & Perrin have a contract to bore for natural gas.

Henderson—Electric-light Plant.—The Henderson Woolen Mills Co. have contracted with the Thomson-Houston Electric Co. for an electric-light plant.

Louisville—Natural Gas.—The Louisville Natural Gas Co., previously mentioned as organized, has a capital stock of \$1,000,000.

Louisville—Writing Machines.—Jno. A. Bagley, Hermon V. Cramer and Walter R. Eaton have incorporated the International Writing Machine Co. for the manufacture and sale of writing machines. Capital stock authorized is \$1,000,000.

Louisville—Bridges.—It is reported that the Louisville & Nashville Railroad Co. will build heavier iron bridges along their road from Louisville to Cincinnati, O.

Louisville—Soap Factory.—The Wood-Haworth Co., lately mentioned as organized to manufacture soap, have bought and will operate the plant of the Southern Soap Co. They may add milling soap machinery during the year.*

Louisville—Natural Gas, &c.—The Trenton Rock Gas & Mining Co. has been chartered by Jno. T. Moore, H. K. Pussey, J. A. Ferguson and others for the development of gas and oil lands, the building of pipe lines, saw mills, smelting works, etc. The capital stock is \$1,000,000.

Middlesborough—Saw Mills.—The Middlesborough Town Co. want to contract with the owners of several portable saw mills for the sawing of lumber near Middlesborough.

Mount Sterling—Water Works.—The Mount Sterling Water Works Co., reported last week as organized to build water works, have not adopted exact plans yet, but will receive bids from various contractors.

Pineville—Bridge.—The West Pineville Land Co. has closed a contract with the King Iron Bridge Co., of Cleveland, O., for the construction of a bridge over the Tennessee river.

Princeton—Planing Mill.—Tucker Bros. are adding a planing mill to their saw mill plant.

Shelbyville—Water Works.—The Commonwealth Construction Co., of Philadelphia, Pa., have offered to erect the water works previously mentioned if given a 20-year franchise. Cost is estimated at \$30,000 or \$35,000.

Vanceburg—Saw Mills, &c.—Chicago capitalists have purchased timber and stone lands, and will develop. Saw mills are to be built.

LOUISIANA.

Alexandria—Sugar Mill.—W. P. Flower has purchased a sugar mill for his Flower-ton plantation.

Covington—Railroad.—The East Louisiana Railroad will be extended into Washington parish. Poitevant & Favre, of New Orleans, can give particulars.

Cypremort—Sugar-house.—A. A. Pecot has put some new machinery in his sugar-house on the Home Place plantation.

Franklin—Sugar-house.—Louis Kramer has let contract for an addition 42x40 feet to his sugar-house; also contract for additional machinery.

Franklin—Printing.—The Banner Printing & Publishing Co., Limited, has been organized, with Murphy J. Foster as president, to publish the St. Mary Banner.

Franklin—Sugar house.—McLaury, Underwood & Short, previously mentioned as

to rebuild their burned sugar-house on the Bellevue plantation, are negotiating for a triple effect.

Howard—Shingle and Saw Mills, &c.—Hon. Howard C. Stringfellow is erecting a shingle factory 40x90 feet, with boiler-house 30x24 feet. The capacity will be 150 M shingles daily. He will also build a saw mill of 30 M feet daily capacity, and a tram-road three-fourths of a mile long.

Morgan City—Sash Factory, &c.—Driebolts & Martin will enlarge their sash, door and blind factory.

New Orleans—Saw Mill.—J. Sullivan will build a saw mill.

New Orleans—Engine.—Flash, Preston & Co. will put a 25 horse-power engine in their warehouse.

New Orleans—Furniture Factory.—A company has been organized with C. K. Hall, president; R. H. Fenne, vice-president, and Harry Edwards, secretary, to establish a furniture factory. The capital stock is \$250,000. The old Chalmette cotton mills will probably be transformed into a furniture factory by this company.

Opelousas—Rice Mill.—A rice mill will, it is said, be built at a point about 25 miles west of Opelousas.

Shreveport—Wagon Factory.—A Philadelphia party contemplates starting a wagon factory. W. S. Haven can give information.

St. John Parish—Shingle Mill.—The mill reported last week as being built at Woodland, Miss., by Chaffe & Athens, of New Orleans, is a shingle mill, and not a saw mill, and is in Louisiana. Capacity will be 100 M daily.

Thibodeaux—Sugar Refinery.—The Lafourche Sugar Refining Co., reported last week as being organized to build a central sugar factory, will shortly contract for machinery. Pipes will be laid to convey syrup from different sugar-houses to the refinery.

MARYLAND.

Baltimore—Fertilizer Works.—The Bradley Fertilizer & Chemical Co. and the Waring Manufacturing Co. have bought the property now occupied by the former company for \$100,000.

Baltimore—Lime Kilns &c.—C. H. Pearson & Co. will build 10 lime kilns of the most improved design and are ready for propositions. They will also sink an artesian well.

Baltimore—Oil Works.—The Baltimore United Oil Co. have erected a Blake triple-condensing pump with a capacity of 3,500,000 gallons per day at their oil works at Canton.

Baltimore—Street Railway.—The Baltimore City Passenger Railway Co. have obtained the permit to extend their Hall Springs line previously mentioned from Orleans and Alquist streets to Patterson Park and Boundary avenues.

Baltimore—Boiler and Engine.—Johns Hopkins University will put in a 120 horse-power boiler and engine.

Baltimore—Shoe Factory.—The Baltimore Boot & Shoe Manufacturing Co. has been incorporated by James Carroll, John Waters, F. C. Slingluff, Henry Clark and Henry S. Zell with a capital stock of \$100,000. Mr. Clark is president. Machinery has not yet been purchased.

Boyd's—Saw Mill.—G. A. & F. A. Zeigler will rebuild their saw mill reported in this issue as burned.

Frederick—Bridge.—The Frederick county commissioners will receive bids for building a bridge across the Monocacy river at Riech's ford.

Frederick—Iron Foundry.—Markell & Wilcoxon are purchasing machinery for their iron foundry previously mentioned.

Port Deposit—Stone Quarries.—Benjamin Kipner is preparing to develop the Cross quarries. Is erecting machinery.

Takoma Park, D. C.—Electric-light Plant.—The Reynolds Electric Lighting Co. have contract to furnish the electric-light plant for Mr. Gilbert, previously mentioned.

Washington, D. C.—Sand Mining.—The Potomac Steam Sand Dredging & Compounding Co. has been incorporated by Morris Murphy, E. A. Adams, Frank E. Hopkins and others to dredge sand out of the Potomac and its tributaries. The capital stock is \$25,000.

MISSISSIPPI.

Brookhaven—Canning Factory.—H. Casedy, F. F. Becker and others are organizing a stock company to build a canning factory.

Greenwood—Oil Mill.—Capitalists are negotiating for a site for a cotton-seed oil mill.

Hattiesburg—Saw and Planing Mill.—The Meridian Sash & Blind Factory, reported last week as having built a saw mill, are erecting a saw mill of 50 M feet daily capacity, planing mill of 30 M feet daily capacity, and dry-kiln with same capacity as planing mill.

Meridian—Railway.—The Mobile & Ohio Railroad Co. (office Mobile, Ala.) will, it is reported, make extensive improvements during the summer.

Natchez—Gas Works and Electric-light Plant.—The Citizens' Gas Light Co. will increase their capital stock to improve their gas works and increase capacity of electric-light plant.

Okolona—Chair Factory.—A chair factory has been started.

Vicksburg—Street Railway.—The Vicksburg Street Railway Co. are extending their lines about half a mile.

Vicksburg—Stone Contract.—Mattingly & Gunning were the lowest bidders for furnishing 60,000 cubic yards of stone for revetting Lake Providence Beach and Louisiana Bend. Their bid was \$1.44 per cubic yard on U. S. barges at the Yazoo.

Winona—Brick-yard.—Lay & Co. have started a brick-yard.

NORTH CAROLINA.

Asheville—Railroad.—A survey will be made shortly of the proposed Asheville, Atlanta & Baltimore Railroad, previously mentioned. N. Atkinson can give particulars.

Asheville—Tobacco Factory.—Hull & Hull are interested in the \$25,000 stock company lately reported as organized to build a tobacco factory. Will manufacture plug and smoking tobacco.

Belfield—Railroad.—Efforts are being made to have the Atlantic Coast Line (office, Wilmington, N. C.) rebuild a railroad from Belfield to Gaston.

Charlotte—Oil Mill, Fertilizer Factory and Ginnery.—The Charlotte Oil & Fertilizer Co., lately reported as to build a cotton-seed oil mill and fertilizer factory, have started active work. They will also build a cotton ginnery with a daily capacity of 60 bales. Capacity oil mill will be 125 tons of seed daily.

Charlotte—Reduction Works.—S. R. Birtlett and J. F. Wiswell, of Boston, Mass., have secured the Adams Reduction Works, and are adding some machinery to test their process for reducing gold ores. Capacity daily will be 20 tons. If successful they will build new reduction works.

Charlotte—Shoe Factory.—Mr. Van Landingham is organizing a stock company to establish a shoe factory.

Charlotte—Refrigerator.—Armour & Co., of Chicago, Ill., will, it is reported, erect a large meat refrigerator warehouse.

Gastonia—Cotton Factory.—J. H. Craig, T. C. Pegram and L. L. Jenkins have organized a company to build another cotton factory. Work is to be commenced soon.

Gold Hill—Gold Mining.—The Gold Hill Mining Co. has been reorganized in

London, England, with a capital stock of £350,000.

Graham—Cotton Mill.—The Sidney Cotton Mill have added 6 Bridesburg looms.

Greensboro—Knitting Factory.—J. W. Scott & Co. are thinking of starting a knitting factory.*

Hendersonville—Spoke and Handle Factory.—The Hendersonville Manufacturing Co. has been organized with Dr. Wester Smathers, president; F. M. Brittain, vice-president, and J. S. Rhodes, secretary, for the manufacture of spokes, handles, barrel hoops, &c. The capital stock is \$5,000.

High Point—Machine Works.—The High Point Machine Works will probably put in additional machinery soon.

Lenoir—Furniture Factory.—The Lenoir Furniture Co., previously reported, will erect three factory buildings, the main building to be 120x60 feet.

Morganton—Furniture Factory.—The stock company lately mentioned as being organized to start a factory is being formed to manufacture furniture. \$10,000 have been subscribed. E. B. Claywell can give information.

Morganton—Peg Factory.—T. J. Gillam contemplates starting a shoe-peg factory.*

Mt. Airy—Quarry.—Messrs. Woodroffe have purchased the Mt. Airy quarry property, containing 40 acres.

New Bern—Dry-kiln.—D. Congden & Son have erected a brick dry-kiln.

Newport—Bagging Factory.—T. L. Oglesby is offering inducements to secure the location in Newport of a pine straw bagging factory.

Raleigh—Paper Mill.—Smith & Allen of Susquehanna, Pa., have purchased the Askem paper mills for \$15,500. They will enlarge the mills at once.

Raleigh—Cotton Mill.—Julius Lewis, Colin Hawkins, J. S. Wynne and others are organizing the stock company mentioned in last issue as to build a cotton mill. \$42,000 has been subscribed to the capital stock.

Raleigh—Wagon Factory.—The North Carolina Wagon Co. are building the factory mentioned last week. N. W. West is president.

Tarboro—Electric-light Plant.—The town has decided to issue the \$5,000 of bonds to put in the electric-light plant previously reported. W. E. Fountain, mayor, can give particulars.

Tarboro—Barrel Factory.—Parties contemplate starting a barrel factory and want full information in regard to the business. Address W. D. Kech, Box 121.

Wadesboro—Granite Quarries.—Grant & Egan, who have the contract to place 100,000 tons of stone on the jetties at Charleston, S. C., as lately stated, have leased land near Wadesboro, and will open quarries. They will quarry the 100,000 tons.

Winston—Shoe-string Factory.—Ora Kerner, of Kernersville, contemplates starting a shoe-string factory.

SOUTH CAROLINA.

Columbia—Street Railway.—The Columbia Street Railway will be extended and improved.

Darlington—Oil Mill.—The Darlington Ginning, Milling, Fertilizer & Warehouse Co. have ordered machinery for their cotton-seed oil mill, previously mentioned. The plant will cost \$15,000.

Darlington—Brick Works.—A. C. Spain & Co. have ordered improved machinery for their brick works.

Darlington—The Darlington Land & Improvement Co. has been organized with a capital stock of \$25,000, which will be increased. They are now improving land.

Edgefield—Brick Works.—Brick works have been started.

Florence—Furniture and Handle Factory.—The stock company reported last week as being organized by W. D. Heape and others

to manufacture furniture, will manufacture furniture, spokes, handles, hubs, &c. Capital is to be \$10,000.

Florence—Oil Mill.—Walter and S. A. Gregg, Z. T. Kershaw, C. M. Covington and others are organizing the Florence Cotton Oil Co., with a capital of \$30,000, to build a cotton-seed oil mill. Machinery will cost about \$12,000.

Greenville—Electrical Railroad.—The Greenville Street Railroad Co. contemplate adopting electricity as a motive power.

Greenville—Cotton Gins.—Cely Bros. will erect four McCarthy English double-roller cotton gins.

Laurens—Oil Mill and Fertilizer Factory.—The Laurens Oil & Fertilizer Co., reported last week as chartered, will build a cotton-seed oil mill and fertilizer factory of 30 tons daily capacity.*

Laurens—Barrel Factory.—It is reported that a stock company is being organized to build a barrel factory.

Mayesville—Bagging Factory.—J. E. Atkins will probably start a pine-fibre bagging factory.*

Ninety-six—Railroad.—The Augusta, Greenwood & Western Railroad Co. have organized with A. M. Aiken, president. It is probable that arrangements will be made with the Charleston, Cincinnati & Chicago Railroad Co. (office, Rock Hill) for the completion of their road.

Spartanburg—Electrical Railroad.—A franchise has been given the company reported lately as organizing to build an electrical railroad to Clifton. A. H. Leftwich, of Greensboro, N. C., is interested.

Spartanburg—Cotton Mill.—The Spartanburg Manufacturing Co., previously mentioned as building large cotton mill, have increased capital stock to \$500,000 and will make capacity of mill 30,000 spindles instead as first intended. Northern parties took \$250,000 of additional stock and will move their plant to Spartanburg. Will put in electric light plant.

Spartanburg—Shoe Factory.—A shoe factory is projected.

Winnaboro—Cotton Mill.—The Winnaboro Cotton Mills, previously reported as organized, have purchased a site and will soon begin work on their buildings.

Woodruff—Cotton Mill.—A \$50,000 cotton mill company is being organized. J. R. Westmoreland can probably give information.

Yorkville—Brick and Tile Works.—W. H. Stuart, of Rock Hill, reported last week as to start a brick-yard, will also manufacture tile.

Yorkville—Buggy Works.—M. C. Willis and W. B. Moore have organized the Carolina Buggy Co. for the manufacture of buggies, wagons, etc. They have works already in operation and will enlarge same later in the year.

TENNESSEE.

Bearden—Tram-Road.—The Stinette Marble Co. will build a tram-road.

Chattanooga—Stove Works.—Thomas A. Leveque is working up a stock company to start stove works.

Chattanooga—Iron Works.—The Ross-Mehan Brake Shoe & Foundry Co. will build an addition of 300 feet to their works, requiring an additional force of 125 men.

Chattanooga—Land.—The Union Investment Co. has purchased 160 acres of land for \$125,000 and will improve same.

Chattanooga—Land.—The Southern Land & Loan Co. has purchased 40 acres of land for \$25,000, and will lay out streets, grade, etc.

Chattanooga—Machine Shop, &c.—The Chattanooga, Rome & Columbus Railroad Co. (office, Rome, Ga.) has plans prepared for a new machine shop and boiler-house. They contemplate erecting shortly a car shed and carpenter shop.

Chattanooga—Railroad.—W. C. Smith, of Wallview; J. C. Wall, of Stevenson, Ala.; J. F. Shipp and others have incorporated the Kansas City, Chattanooga & Port Royal Railroad Co. to build a railroad to a point on the Mississippi river.

Chattanooga—Wagon Factory.—A wagon factory will, it is reported, be started by J. N. White.

Chattanooga—Electric-light Plant, &c.—W. H. Dorsey, W. F. Paine, J. H. McLean and others have applied for a charter to manufacture electricity, to conduct a general messenger, telephone, fire-alarm and patrol-call business.

Chattanooga—Boiler Works.—Casey Bros., previously reported as establishing boiler works, have, with W. M. Hedges, Linn White and others, incorporated a company to operate same.

Chattanooga—Railroad and Tunnel.—The Chattanooga Southern Railroad Co. are considering the building of a tunnel through Lookout mountain; also the extension of their road to Fort Payne, Ala.

Chattanooga—Harness Factory.—G. A. Croft, of Cincinnati, Ohio, has organized a stock company with a capital of \$25,000 to operate the harness factory of Carmack & Ford.

Columbia—Flour Mill.—H. A. McLemore & Bro. will organize as a stock company with C. N. McLemore as president. The capital stock will be \$30,000.

Covington—Saw Mill.—H. H. Lewis has started a saw mill.

Fayetteville—Railroad.—The Decatur, Chesapeake & New Orleans Railway Co., of Alabama, and the Decatur, Chesapeake & New Orleans Railway Co., of Tennessee, have consolidated. Contract for 7 miles of their road, extending from a point 3 miles south of Fayetteville to a point 4 miles north, has been let, and bids will be received for the remaining 25 miles in Lincoln county. G. W. Edwards is in charge of the work.

Flippin—Saw Mill.—A saw mill with a daily capacity of 30 M feet has been started.

Jasper—Bridge.—The King Iron Bridge Co., of Cleveland, Ohio, have been awarded the contract for the construction of a bridge over the Sequachee river. Work will, it is said, begin in May.

Jellico—Coal Lands.—The Jellico Coal Mining Co. has purchased several thousand acres of coal lands.

Jellico—Mining.—Frank Seward is developing mineral and coal lands in Whitley county.

Knoxville—Pottery.—Zachery Grindstaff and Mr. Lawson will build a pottery on the line of the Cumberland Gap Railroad, 15 miles from Knoxville.

Knoxville—Railroad Terminals.—The East Tennessee, Virginia & Georgia Railroad Co. have purchased several pieces of property and will probably enlarge their yards.

Knoxville—Electrical Railway.—The Riverside Electric Street Railway Co. has been incorporated by Jno. M. Brooks, W. A. Park, C. A. Fellows, W. W. Denning and G. W. Arthur to build the electrical railroad reported in last issue. It will be 5 miles long.

Knoxville—Tobacco Factory.—J. E. Rumbaugh is considering the erection of a larger tobacco factory in the suburbs of the city.

Knoxville—Wheel Factory.—W. P. Scates has organized a stock company with a capital of \$8,000 to start the manufacture of his patent turbine water-wheel.

Loudon—Saw Mill.—W. O. Guernsey is building a saw mill.

Loudon—Marble Quarries and Mill.—The Standard Stone & Marble Co., of Chattanooga, lately mentioned as contemplating developing marble quarries and building

a marble mill, have, it is stated, definitely decided to do so.

Loudon—Tram-road.—A tram-road will, it is reported, be built around the town.

McKenzie—Can Factory.—N. B. Life and F. D. Walpole, lately mentioned as to erect a factory for manufacturing a patent oil can, have organized as the Walpole Manufacturing Co. Mr. Life is president.

Memphis—Saw Mill.—W. E. Cole has started a saw mill.

Memphis—Brush, &c.—Wm. T. Russell will receive proposals until May 22 for about 25,000 cords willow brush and 4,000 cords poles for use at Louisiana Bend, La.

Morristown.—The Iron Belt Development Co. has been incorporated.

Nashville—Bridge.—Plans have been prepared for the Tennessee Midland Railroad Co.'s bridge over the Tennessee river. Company's office is at Memphis.

Nashville—River Improvement.—Holmes & Wills have the contract for the excavation and construction of the foundation for the first lock in the Cumberland river. Contract price is \$70,000. The lock will be 52x280 feet. Contract for walls, 30 feet high and 14 feet wide at the bottom, and 6 at the top, will be let in two or three months. Col. J. W. Barlow is engineer in charge.

Nashville.—The Tennessee Agricultural & Mechanical Co. has been chartered by P. A. Smith, W. B. Rood, J. B. Hollis and others.

Nashville—Electric-light Plant.—The Nashville Iron, Steel & Charcoal Co. are putting in an electric-light plant to light their works and furnaces at West Nashville.

Nashville—Pumping Engine.—The board of public works recommend that the new pumping engine previously reported be purchased at once. Capacity will be about 10,000,000 gallons daily.

New Market—Corn and Flour Mills.—J. E. Gardner is building a corn and feed mill and will rebuild his flour mill reported last week as burned at Friends' Station. Latter will have rolls and burrs.

South Pittsburgh—Publishing.—W. R. Halsey has begun the publication of the Daily Standard.

South Pittsburgh—Mineral Lands.—A 60 days option has been obtained by capitalists on 8,000 acres of coal and iron ore lands.

South Pittsburgh—Furnace.—The Tennessee Coal, Iron & Railroad Co. are repairing their No. 3 furnace.

TEXAS.

Austin—Cotton Factory.—A \$200,000 cotton factory is projected.

Cisco—Coal Mines.—The Wiser coal mines near Cisco have been purchased by New York parties, it is reported, and will be developed.

Collinsville—Coal Mines.—A syndicate is sinking test shafts with a view to developing coal mines.

Corpus Christi—Electric-light Plant, &c.—The Corpus Christi Electric-light Co. will erect the electric-light plant and the telephone system lately mentioned. Have not decided as to machinery.

Corsicana—Sewerage System.—The city will shortly want bids for the sewerage system previously reported. The mayor can give particulars.

Dallas—Piano Factory.—The Texas Piano Co. has been incorporated with a capital stock of \$75,000.

Dallas—Natural Gas.—W. E. Parry and associates have applied for a 50-year franchise to lay mains and pipes for natural gas, both in Dallas and East Dallas.

Dallas—Twine Factory.—The Dallas Cotton and Woolen Mills have not yet started the twine factory mentioned lately, but are contemplating starting such a factory.

De Kalb—Mill.—Emma A. Peters will rebuild her mill lately mentioned as damaged by a boiler explosion.

Denison—Dummy Line.—Parties have purchased the Denison street railway and will change to a dummy line.

Denison—Steel Plant.—It is rumored that an immense steel plant is to be built.

Denison—Cotton Mill.—Capital to build a 50,000-spindle cotton mill has been subscribed. W. P. Rice, of Fort Payne, Ala., can give particulars.

Denison—Factories, &c.—A \$1,250,000 land and improvement company has been organized to build up the city, encourage the starting of manufactories, &c. W. P. Rice, of Fort Payne, Ala., can give information.

Fort Worth—Railroad.—The Fort Worth & Denver Railroad Co. will, it is reported, extend their road from Hodge to Fort Worth, 6 miles.

Fort Worth—Watch Factory.—A watch factory will, it is reported, be moved from Illinois to Fort Worth. E. E. Chase can probably give particulars.

Galveston—Lard Factory.—The establishment of a factory for the manufacture of lard from cotton-seed oil is being agitated. T. Flavin can give information if anything is done.

Galveston—Cotton Mill.—The name of the company lately mentioned as being organized by Albert Weiss and others to build a large cotton mill is the Galveston Cotton & Woolen Mills. Capital stock is \$500,000. They will soon start work on mill.

Galveston—Woodenware Factory.—The capital stock of the company reported last week as being organized by John A. Caplen to start a woodenware factory is to be \$200,000.*

Galveston—Artesian Wells.—The Galveston Artesian Well Co. has been chartered by J. W. Byrnes, W. H. Sinclair and others with a capital stock of \$50,000.

Galveston—Ice Factory.—The Texas Ice & Cold Storage Co. have contracted for another ice machine of 15 tons capacity.

Galveston—Sugar Refinery.—J. Reymershoffer, reported last week as contemplating starting a sugar refinery, is organizing a \$250,000 stock company. Capacity is to be about 40 or 50 tons daily.

Galveston—Ice Factory.—The Texas Ice & Cold Storage Co. are doubling the capacity of their ice factory.

Greenville—Ice Factory.—C. W. Dowley, of Denison, and J. A. Price, of Sherman, are prospecting with a view to erecting an ice factory.

Hillsboro—Street Railway.—A syndicate of capitalists are considering the construction of a six mile street railway.

Houston—Barrel Factory.—A barrel and cooperage factory is projected. The Citizens' Association can give particulars.

Houston—Box and Canning Factories.—Wallace O'Leary has started a wooden box factory, and will shortly add the manufacture of tin boxes. He also contemplates establishing a canning factory.

Houston—Rolling Mill.—A \$100,000 rolling mill will probably be established. The Citizens' Association can give information.

Jefferson—Water Works.—The Jefferson Water Co. has been incorporated with a capital stock of \$5,000.

Jefferson—Iron Furnace and Car-wheel Works.—Jno. A. Kruse & Co., of Chicago, previously mentioned as to build charcoal iron furnace and car-wheel works, have incorporated as the Lone Star Iron & Steel Co. with a capital stock of \$1,000,000. Work will be commenced within one month on the plant.

Langtry—Tin Mine.—A tin mine is reported as being developed.

Llano—Iron Furnace, Car-wheel Works, &c.—A charcoal iron furnace and charcoal ovens to cost \$150,000, car-wheel works to cost \$50,000, water works to cost \$50,000,

electric-power plant to cost \$50,000, water, gas and ice works to cost \$50,000, &c., are projected. Henry Exall, of Dallas, president Llano Improvement & Furnace Co., can give information. He will be at the Fifth Avenue Hotel, New York City, for the next month.

McKinney—Electric-light Plant.—A contract has been signed for erecting the incandescent electric-light plant previously mentioned as projected.

McGregor—Water Works.—The city council is considering the establishment of water works. The mayor can give information.

Nacogdoches—Railroad.—The Red River, Sabine & Western Railway Co. will meet June 5 instead of April 29 to consider the increase of the capital stock to \$3,500,000, and the bonding of their road to the amount of \$20,000 per mile.

Paris—Cotton Mill.—A stock company is being organized to build the cotton mill lately mentioned. Dr. J. M. Fort is interested.

Plank—Saw Mill.—Middlebrook & Bro. will increase the capacity of their saw mill to 60 M feet daily.

Rusk.—The Cooke & New Birmingham Iron Springs Driving Park & Fair Association has been organized, and are laying off grounds and will erect buildings. R. B. Reagan is president.

San Antonio.—The city will issue \$250,000 in bonds for street improvements. The mayor can give particulars.

San Antonio—Machine Works.—The object of the Triumph Refrigerating Machine Co., lately reported as chartered with \$50,000 capital stock, is to manufacture refrigerating and ice machinery.

Sulphur Springs—Railroad.—G. B. Boomer, of Rochester, N. Y., and C. H. Stewart, of Chicago, previously reported as contemplating building a narrow-gauge railroad to Cooper, have secured subsidies to the amount of \$55,000, and will begin work at once.

Sulphur Springs—Oil Mill.—It is reported that George B. Boomer, of Rochester, N. Y., previously mentioned as to build a cotton-seed oil mill, will commence work at once.

Terrell—Street Railroad.—D. J. Anthony may build a street railroad if W. A. Disborough, reported last week as receiving franchise, does not.

Waco—Water Works.—J. D. Bell, lately mentioned as contracting to furnish the city with water, has chartered the Bell Water Co. with a capital stock of \$250,000.

VIRGINIA.

Front Royal—Wagon Factory.—W. P. King is the party who established the wagon factory previously mentioned. The capital stock is \$15,000.

Green Forest—Iron Mines.—The Buena Vista Co. will commence developing their iron ore mines, previously mentioned, at once.

Green Forest—Flour Mill.—Parties have applied for water-power privileges at Buena Vista with the view to establishing a flour mill. The Buena Vista Co. can give information when anything is done.

Green Forest—Bridge.—An iron bridge will be built over the river at Buena Vista. The Buena Vista Co. can give particulars.

Green Forest—Timber Lands.—Haden & Bragg will, it is reported, develop 600 acres of timber land near Buena Vista.

Goodson (P. O. Bristol).—The Virginia, Tennessee & Carolina Iron & Steel Co., incorporated by the legislature about two years ago, have filed a charter with Secretary of State at Richmond. Capital stock is \$4,000,000. Offices are to be at Goodson, Pineville, Ky., Cranberry, N. C., and Jersey City, N. J. F. W. Huidekoper, of Washington, D. C., is president.

Kent's Mills—Woolen Mill.—New machinery has been placed in the Kent Woolen Mills.

Lexington—Ice Factory.—E. A. Qaisenberg, reported last week as organizing a company to establish an ice plant, contemplates the erection of a plant of from 5 to 8 tons daily capacity, to cost \$7,000.

Marshall—Marble Quarry.—H. D. B. Norris is developing a marble quarry.

Newport News—Iron-working Shop.—The Chesapeake Dry Dock & Construction Co., previously mentioned as building a ship-yard, are about commencing work on their iron-working shop, which is to be 25x120 feet.

Page County—Iron Mines, &c.—J. Blake Kendall, of Washington, D. C., has leased iron and manganese land from D. F. Kagey and B. C. Rust, and will develop same.

Pocahontas—Electric-light Plant.—The Norfolk & Western Railroad Co. (office, Roanoke) are erecting an electric-light plant.

Richmond—Electric-light Plant.—The city is investigating the cost of an electric-light plant with the view to purchasing one. The mayor can give information.

Richmond—Machine Shop.—H. D. Whitcomb will receive proposals until May 10 for building a new machine shop for the Newport News & Mississippi Valley Railroad Co.

Richmond—Stove Works.—The Southern Stove Works Co. has been chartered with C. H. Fleming, president; W. J. Loth, vice-president, and Percy Loth, secretary, to carry on a general stove and foundry business. The capital stock is to be not less than \$20,000 nor more than \$200,000.

Roanoke—Park.—Messrs. Earman, Huff and Childress are organizing a stock company to lay out a park, build a lake, &c.

Roanoke.—The Glade Land Co. has been chartered with Geo. O. Houston, president, and Geo. C. McCahan, secretary, to deal in real estate, erect buildings, operate factories, furnish water and light, &c. The capital stock is to be not less than \$8750 nor more than \$100,000.

Rocky Mount—Gold Mining.—Dr. Henry Franklin, of Richmond, will, it is reported, erect sluices and rockers for the purpose of washing gold.

Salem—Rolling Mill.—A rolling mill is projected. If anything is done the Southwest Virginia Land Co. can give information.

Salem—Iron Furnace and Iron Mill.—The Southwest Virginia Land Co., reported last week as organized, will build, it is stated, an iron furnace and a hoop iron mill.

Suffolk—Railroad.—The Suffolk & Carolina Railroad, running from Suffolk to Chowan, N. C., a distance of 40 miles, will, it is reported, be made standard gauge.

Triford—Preserving Works.—The Buena Vista Co., reported in last issue as organized to establish preserving works, has a capital of \$20,000. O. P. Evans is president of the company, and G. W. Leckie, secretary.

Wytheville—Mineral Waters, &c.—The Pilot Ridge Springs Co. has been organized with Frank S. Blair as president, to ship mineral waters, build a hotel, &c. The capital stock is to be not less than \$100,000 nor more than \$250,000.

Wytheville—Electric Plant, Fertilizer Factory, &c.—J. B. Barrett & Co., reported last week as asking for franchise to build an electric-light plant (and electrical railroad, are organizing the Wytheville Electric Power & Improvement Co. to build the plant and railroad; also manufacture fertilizers, woolen and cotton goods, work-work, &c. They have secured the water-power of J. B. Barrett and will start operations at once. Capital stock is to be not less than \$40,000 nor more than \$250,000.

WEST VIRGINIA.

Belmont—Oil Well.—Wm. Johnston is drilling another oil well.

Belmont—Oil Well.—Mildren Bros., of Butler, Pa., are drilling for oil.

Benwood—Iron Furnace.—The Riverside

Iron Works will, it is stated, build another iron furnace and are making surveys. Present furnace is 75x16 feet.

Bluefield—Electric-light Plant.—An electric-light plant has been erected.

Bramwell—Bottling Works.—Digges & Hix have started bottling works.

Cairo—Railroad.—The Baltimore & Ohio Railroad Co. (office Baltimore, Md.) will, it is said, probably build a branch road to Grantsville, a distance of 35 miles.

Charleston—Land.—The Aspinwall and A. A. Law tracts of lands have been sold. They contain about 200,000 acres.

Charleston—Street Railway.—E. B. Dyer and associates have received a franchise to build a street railway.

Cornwallis—Tram Road.—C. S. Fernsmith has built a tram road to his timber lands.

Ellenboro—Railroad.—Chas. S. Martin, Thomas E. Davis, L. D. McWhorter and others have incorporated the Ohio & West Virginia Southern Railroad Co. to build a railroad from the coal fields near Glenville to Marietta, Ohio, a distance of 65 miles. Rights of way have been secured.

Ellenboro—Stone Quarry.—The Baltimore & Ohio Railroad Co. (office Baltimore, Md.) have opened a stone quarry.

Grafton—Broom Factory.—H. Will & Co. have started a broom factory.

Harper's Ferry—Lime Kiln.—Edward Godey will, it is reported, move his lime kilns to Pitcher's Mill next fall.

New Cumberland.—W. B. Lee, of Titusville, has leased oil land on Holbert's run from Lewis Sanders.

New Cumberland—Gas Tanks.—John McKeown will erect six gas tanks.

Parkersburg—Saw Mill.—Noah Athey has moved his saw mill from Pigeon's Roost to a point on the Little Kanawha river, one mile from Parkersburg.

Implement Factory.—Sanford & Battamly, of Brockfield, Mo., are prospecting for a location in the South of an agricultural implement factory.

Stave and Lumber Mill.—Scherschell Bros., Lagro, Ind., are looking for a site in the South for a stave and lumber mill.

Spoke and Handle Factory.—F. Randle, of Olney, Mich., contemplates starting a first class spoke and handle factory at some point in the South.*

BURNED.

Barton, Ark.—The ginhouse of Roland J. Cook; loss \$2,500.

Birmingham, Ala.—The roundhouse of the East Lake Dummy Line; loss about \$5,000.

Canadian City, Texas.—The bridge over the Canadian river washed away by a flood; loss \$18,000. Also the railroad bridge one mile below.

Cape Charles, Va.—The engine-house of the New York, Philadelphia & Norfolk Railroad Co.; loss \$9,000.

Chopin, La.—The saw mill of the Chopin Lumber Co. and several houses; loss \$30,000.

Erin, Tenn.—The Erin Stave & Lumber Co.'s works; loss \$12,000.

Humphreys, Ga.—The planing mill of Mr. Barnes; loss \$5,000.

Jesup, Ga.—The Altamaha Hotel, owned by the Savannah, Florida & Western Railway Co. (office, Savannah); loss \$10,000.

Lexington, Ky.—The hemp factory of Sparks & Morgan.

Louisa, Ala.—The grist, flour and circular saw mill and cabinet shop of Isham Thornton; loss \$2,000.

Malvern, Ark.—The Garland House. Will be rebuilt.

Mansfield, Texas.—The Mansfield College building; loss about \$15,000.

Pine Barren, Fla.—The shingle mill of the McMillan Mill Co.; loss \$8,000.

Rockmart, Ga.—The saw and shingle mill of Jones & Bros.; loss \$4,000.

Rockville, Md.—The saw mill of Zelgler Bros.; loss \$2,000. Will be rebuilt.

A 30,000 SPINDLE COTTON MILL—SPARTANBURG, S. C., April 27, 1889.—Our city, I can well say, is on a Southern boom. Right in its very heart a \$500,000 cotton mill is now erecting and rapidly building. A \$25,000 female college will soon be erected—the stock subscribed and a beautiful location selected and purchased—and has been baptized Converse College in honor of D. E. Converse, president of the Clifton and Glendale Cotton Mills, situate 5½ and 8 miles from our city, who has taken considerable interest in its establishment. Our water works, just completed to day, were tested by the chief of our fire department, with our mayor and city council as witnesses, who pronounced it a success and have accepted and confirmed the contract. It is owned and managed by Moffett, Hodgkins & Clarke, of Jefferson county, N. Y. Our growing city here is certainly a fine opening for a shoe, broom, woodenware and other like factories, and ere the year ends doubtless we will be connected with the two Clifton Cotton Mills, Glendale Cotton Mill and Whitney Mill by an electric railway, as everything is progressing most favorable to its early commencement.

JOS. M. ELFORD.

A FLOURISHING SOUTH CAROLINA TOWN—FLORENCE, S. C., April 29, 1889.—There has been organized here within the last three months one bank, electric-light company, cotton-seed oil mills, furniture factory and the Union Trust Co. There is an artesian well in prospect. This city was made the county seat of Florence county, which was formed this year. Six or eight large brick buildings are now going up. The courthouse and jail will be built this summer, also another opera house and a large brick church. The machine shops of the Atlantic Coast Line are located here. The transportation facilities of Florence are second to none in the South. We have railroads running to all points of the compass. There is no place in the South that offers better advantages to capitalists for investment than Florence. We want a cotton factory, canning factory and bucket factory; also, a first-class blind, door and sash factory. Any inquiries will be gladly answered by

E. O. DOUGLAS.

NEW MANUFACTORIES AT GALVESTON—GALVESTON, TEXAS, April 26, 1889.—Galveston is now organizing a company with \$250,000 capital for a sugar refinery of a capacity of 75 to 100,000 pounds sugar per day. Cotton mill was lately organized with A. Wies, president; B. Adoue, vice-president, and J. Range, secretary and treasurer. Authorized capital \$500,000; subscribed, \$350,000. Books of subscription will be closed May 10th, and the work to establish the mill will proceed at once. Cordage factory organizing with capital \$100,000. So far subscribed \$70,000. Directors, A. B. Homer, J. D. Rogers, G. Sealy, N. H. Ricker, Leon Blum, L. S. McKinney, H. Landes.

TO ERECT ELECTRIC POWER PLANT—WYTHEVILLE, VA., April 24, 1889.—A company is now being formed with capital, minimum \$40,000, maximum \$250,000, called the Electric Power & Improvement Co., for the purpose of lighting and furnishing power for the town of Wytheville, manufacturing fertilizers, running wood-working machinery, manufacturing wool and cotton, milling, &c. The very valuable water power of J. B. Barrett & Co., just outside of the corporate limits, has been secured and operations will commence at once.

J. B. BARRETT & CO.

New Southern Banks.

Beattyville, Ky.—Capital has been subscribed to start a bank.

Cartersville, Ga.—The First National Bank has commenced business. J. H. Vivion is cashier.

Charleston, S. C.—A new savings bank is to be started.

Gainesville, Ga.—The First National Bank has been organized with \$50,000 capital.

Houston, Texas.—The Houston National Bank has been organized. L. L. Jester is cashier.

Jacksonville, Fla.—A bill has been introduced in the legislature at Tallahassee to charter the Southern Savings & Trust Co.

Leaksville, N. C.—A bank has been organized.

Lewisburg, Tenn.—A bank has been organized with W. W. Ogilvie as president; J. B. Ezell, of Chapel Hill, vice-president, and Allen McCord, cashier.

Lonsaconing, Md.—The name of the savings bank lately mentioned as being organized is the Lonsaconing Savings Bank. David Sloan is president; Isaac Bradburn, vice-president, and Duncan R. Sloan, secretary and treasurer.

Lumpkin, Ga.—A bank is being organized.

Madison, Ga.—The capitol of the Bank of Madison, lately mentioned as to be started, will be \$50,000.

New Birmingham, Texas.—Wade Bonner will start a bank.

Pulaski, Va.—The Pulaski National Bank has been organized with J. H. Caddall as president; W. T. Jordan, vice-president, and W. T. Nicholson, cashier. Will commence business July 1.

Richmond, Va.—The Security Finance Co. has been chartered with E. D. Christian as president, and James B. Pace, secretary and treasurer. The capital stock is to be not less than \$100,000 nor more than \$500,000.

Rogersville, Tenn.—The Rogersville National Bank has been organized with \$50,000 capital.

Tullahoma, Tenn.—The capital of the First National Bank, reported last week, is \$50,000.

Union Springs, Ala.—The Farmers' Alliance contemplates starting a bank with \$100,000 capital.

West Point, Miss.—A State bank is being organized. Capital will be \$50,000.

West Point, Miss.—The Merchants & Planters' Bank is being organized by T. C. King and others.

Whitewright, Texas.—A bank will be started shortly by Womack & Son, of Dangerefield.

WANT TO MOVE SOUTH—LAGRO, IND., April 24, 1889.—We are looking for a desirable point for stave and lumber business in the South. Will perhaps need some machinery. SCHERSCHL BROS.

IRON FURNACE, ROLLING MILL, &c., TO BE BUILT AT FORT PAYNE—FORT PAYNE, ALA., April 22, 1889.—A large saw and planing and wood-working establishment is being erected here, much of the machinery having been shipped. Another planing mill is being erected; machinery on the ground. One of the largest fire-brick works in the United States is to be located here; expert workmen already employed and the machinery will be purchased. A large carriage factory is being built. A model iron furnace with all appliances will be built; work to begin within the next 30 days. A rolling mill will be built; work beginning within the next 60 days.

FORT PAYNE COAL & IRON CO.

C. O. GODFREY, Gen. Mgr.

Building Notes.

Abbeville, La.—The contract to build the new courthouse for Vermilion parish, previously mentioned, has been awarded to Webb & Southwell at \$21,200.

Amarillo, Texas.—Hotel.—The Amarillo Hotel will be enlarged by the erection of a three-story brick addition 100x140 feet.

Anniston, Ala.—Depot.—The Georgia Pacific Railroad Co. (office, Birmingham) will build a new depot.

Anniston, Ala.—The Young Men's Christian Association are making efforts to raise money to erect a building to cost \$50,000.

Anniston, Ala.—The Noble Institute for Girls will be enlarged at a cost of \$20,000, and bids are being received for the work. Architects are Chisolm & Green.

Asheville, N. C.—Hotel.—A hotel to be known as the Kenilworth Inn will be built at a cost of \$200,000.

Asheville, N. C.—T. W. Patton, C. D. Blanton, W. E. Breese and others have chartered the Asheville Opera-house Co. and will build an opera-house to cost \$25,000.

Atlanta, Ga.—J. W. Jacobs will receive proposals until May 24 for the erection of officers' quarters, barracks and administration building on the military reservation near Atlanta. Another appropriation of \$75,000 has been made.

Baltimore, Md.—St. Michael and All Angels' Church will be enlarged at a cost of \$13,000. Rev. Dr. Kirkus can give particulars.

Baltimore, Md.—Isadore Noah will build a four-story business house.

Baltimore, Md.—The Bay Ridge Excursion Co. will erect a pier and a building at 10 Light-street wharf.

Birmingham, Ala.—The erection of a Board of Trade building is being considered.

Bluefield, W. Va.—The Norfolk & Western Railroad Co. will erect 30 dwellings.

Buckhannon, W. Va.—The Buckhannon Building & Loan Association No. 2 has been organized.

Camden, Ark.—The time for the receiving of proposals for the erection of the Ouachita county courthouse has been postponed by W. K. Ramsey until May 31. Thos. Harding, of Little Rock, is the architect.

Charleston, S. C.—Henry Oliver has received contract for the erection of the Young Men's Christian Association building, previously mentioned.

Chase City, Va.—W. H. Holt & Co. have the contract for the erection of the Concord Male Academy lately mentioned. The cost will be \$6,000.

Chattanooga, Tenn.—The Mutual Real Estate & Home Building Association will erect several two-story buildings, and are receiving bids.

Chattanooga, Tenn.—Hotel.—W. M. Wilhoite will enlarge his hotel by a three-story addition 100x110 feet. Work has been started.

Clarksburg, W. Va.—Hotel.—It is reported that a large hotel will probably be built.

Columbia, Ala.—A building and loan association has been organized with M. Cody, Sr., president, and G. L. Campbell, secretary.

Concord, N. C.—The Odell Manufacturing Co. will have 100 houses built for their hands.

Covington, Tenn.—S. E. Stephenson can give information of the courthouse previously mentioned as to be built. It is to be two stories high and to cost \$25,000.

Covington, Ky.—Hotel.—A hotel will probably be built. The Chamber of Commerce can give information.

Cambe land Gap, Tenn.—Hotel, &c.—The Cumberland Gap Hotel Co., of New York City, will build a large hotel, a sanatorium and a casino, and are having plans prepared by Bigelow & Dufais, of New York City. Buildings will cost \$550,000 and furniture \$150,000.

Dallas, Texas.—The Greenwall Opera-house will be enlarged and remodeled.

Dallas, Texas.—The city will probably build a market-house and hall. The mayor can give information if anything is done.

Dayton, Tenn.—The jail committee have let contract for the construction of the new jail to the Van Dorn Iron Works, of Cleveland, Ohio, at \$9,600.

Donaldsonville, La.—James Freret, of New Orleans, has received contract for plans for the rebuilding of the courthouse destroyed by fire. The loss was \$18,000.

Eastman, Ga.—Hotel.—The erection of another hotel is contemplated.

Elberton, Ga.—W. A. Cochran, of Atlanta, has prepared plans for a 48x65 feet, two-story schoolhouse to cost \$8,000. H. C. Mickel can give particulars.

Elkins, W. Va.—Hon. Stephen B. Elkins is selecting a site for his fine large residence previously reported as to be built.

Evergreen, Ala.—Hotel.—A company with a capital stock of \$20,000 has been organized to build a hotel.

Fort Smith, Ark.—The contract for the approaches to the public buildings, previously mentioned, has been awarded to Geo. D. Loder at \$14,523.

Fort Worth, Tex.—A \$75,000 business house will, it is reported, be built on Rusk street.

Gainesville, Ga.—A branch of the Southern Building & Loan Association, of Knoxville, Tenn., has been organized with G. P. Boone, president; J. W. Smith, vice-president, and C. A. Dayier, secretary.

Greenville, Miss.—Starling & Smith will erect a block of stores and office buildings.

Greenville, S. C.—Cely Bros. will build a cotton warehouse. They will also rebuild their warehouse destroyed by fire lately.

Greenville, S. C.—Hotel.—The Paris Mountain Hotel Co. have let contract for one wing of the hotel lately reported to Case & Litton. It will be three stories.

Hagerstown, Md.—The Junior Fire Co. will erect a new engine-house. It is to be three stories, 80x38 feet. L. D. Kelly can give further information.

Johnson City, Tenn.—The Charleston, Cincinnati & Chicago Railroad Co. (office, Rock Hill, S. C.) will, it is reported, erect a freight depot 300x40 feet, two stories high, and a block of six store buildings four stories high. They have let contract for 5,000,000 brick to the Johnson City Brick Co.

Knoxville, Tenn.—The University of Tennessee will issue \$30,000 of bonds for erecting new buildings, purchasing outfit for chemical laboratory, &c.

Knoxville, Tenn.—Hotel.—The name of the company previously mentioned as being organized to build a large hotel is the Knoxville Hotel Co. Capital stock is \$500,000. Corporators are D. Deaderick, W. P. Chamberlain, C. M. McClung and others.

Knoxville, Tenn.—A medical college will be built.

Laredo, Tex.—The Laredo Improvement Co. are advertising for 1,000,000 brick to be used in building business houses.

Laurinburg, N. C.—Wm. McKinnon has been awarded the contract for the erection of the new courthouse reported previously at \$9,900.

Lexington, Ky.—The Kentucky Association will probably spend \$30,000 in improving their race track, erecting new buildings, &c.

Lewisburg, Tenn.—A banking company has been organized, and will erect a bank building. W. W. Ogilvie is president.

Liberty, Va.—Hotel.—Benjamin R. Brown will probably build a hotel.

Little Rock, Ark.—Hotel.—The Capital Hotel will be enlarged and improved and a passenger elevator will be put in.

Little Rock, Ark.—Orlopp & Kusener, architects for the Merrill Institute building at Pine Bluff, will receive proposals for the erection of same until May 6.

Little Rock, Ark.—Dr. C. Watkins will erect a store building 50x140 feet, two stories high, to cost \$10,000. C. L. Thompson is the architect.

Little Rock, Ark.—Mrs. Murrell will remodel her residence at a cost of \$30,000. F. J. H. Rickon is the architect.

Llano, Texas.—Hotel.—It is contemplated to build a \$50,000 hotel. Henry Exall, of Dallas, president Llano Improvement & Furnace Co., can give information. For the next month he will be at the Fifth Avenue Hotel, New York city.

Louisville, Ky.—Hotel.—The South Park Residence Co. has been incorporated with a capital of \$300,000 to build a hotel and residences near Louisville.

Macon, Ga.—A site 232x100 feet has been purchased on which to erect a new schoolhouse. R. W. Cubbedge can give particulars.

Malvern, Ark.—Hotel.—Mrs. Shannon will rebuild the Garland House burned lately. New building will contain 30 rooms, and will probably be built of brick.

Memphis, Tenn.—S. I. McCallum will erect a two-story brick building to cost \$7,117.

Mexia, Texas.—A branch of the National Building, Loan & Protective Union, of Minneapolis, Minn., has been chartered with W. H. Bessling, president; A. T. Schultz, vice-president, and J. G. Kirksey, secretary.

Nashville, Tenn.—B. J. Hodge has prepared plans for a four-story building, 23x100 feet, to cost \$10,000, for W. McMurray; also plans for a dwelling for Hiram Stubblefield to cost \$8,000. Geo. W. Thompson has prepared plans for a dwelling for J. P. Williams to cost \$25,000.

Nashville, Tenn.—The Tulip Street Methodist Church will erect a new church at Russell and Sixth streets to cost \$25,000.

New Birmingham, Texas.—Hotel.—A company has been organized, with A. B. Blevins as manager, to build a hotel, bathhouses and lay off a park. The capital stock is \$25,000.

Nicholasville, Ky.—A building and loan association has been organized.

Ocala, Fla.—Havis & Tyler have the contract to erect a two-story school building 56 x 80 feet for the city to cost \$9,000.

Ocala, Fla.—The Methodists will build a new church to cost \$10,000.

Paragould, Ark.—The Citizens' Building & Loan Association has been organized with A. A. Knox, secretary.

Point Pleasant, Va.—Philpott & Giesey, of Wheeling, have prepared plans for a schoolhouse 78x96 feet to cost \$17,000.

Port Deposit, Md.—Charles Cooper, of Charlestown, has been awarded the contract for the brick work of the Odd Fellows' Hall by Jacob Tome.

Roanoke, Va.—The new church reported last week as to be built by the Baptists will cost about \$12,000. S. W. Jamison can give particulars.

Rockport, Tex.—P. P. Court will receive until May 13 plans and specifications for a two-story courthouse building to cost not less than \$16,000 nor more than \$20,000, planned for center of block; also a combined jail and jailer's house, two-story, brick, without steel cages, to cost not less than \$3,000 nor more than \$5,000.

Rocky Mount, N. C.—A stock company has been organized to build a tobacco warehouse.

Sheffield, Ala.—Dr. J. H. Mackintosh has

purchased 40 acres of land and will divide into building lots and erect several dwellings.

Smithfield, N. C.—N. G. Yelvington will build five brick stores and one brick dwelling.

Spartanburg, S. C.—The Converse College Co., lately mentioned as organized, have purchased a building for \$10,000 and will remodel it.

Spartanburg, S. C.—A corrugated iron warehouse will be built for the storage of cotton and fertilizers.

Spartanburg, S. C.—Hotel.—Frank Cox, of Asheville, N. C. has, it is rumored, offered \$50,000 for Glenn Springs with a view, if he purchases, to erecting a hotel and building a railroad to the springs.

Stevenson, Ala.—Hotel.—The hotel previously reported as to be built by the Stevenson Land & Improvement Co. will cost \$20,000. Mr. Veale, of Chattanooga, Tenn., is the architect.

Talladega, Ala.—Depot.—The Talladega & Coosa Valley Railroad Co. (office, Renfro) will build a new depot.

Tarboro, N. C.—The town has decided to issue the \$10,000 of bonds to build the hall lately reported. W. E. Fountain, mayor, can give information.

Tracy City, Tenn.—Marshall & Humphries, of Cleveland, have been awarded the contract for erecting the school building previously mentioned at \$27,225.

Tuscumbia, Ala.—Bids will be received until May 6 for the erection of a new schoolhouse. Address John A. Steele, Jr.

Vicksburg, Miss.—The Louisville, New Orleans & Texas Railroad Co. (office, Memphis, Tenn.) will erect a roundhouse and make other improvements.

Washington, D. C.—John T. Lemnan and Mr. Maddox will erect business buildings.

Washington, D. C.—The Washington Safe Deposit Co. will enlarge their building.

Washington, D. C.—J. L. Parson has been awarded the contract for the addition to the High School building previously mentioned at \$36,589.

Washington, D. C.—William Whitthart will build two brick dwellings to cost \$6,300; E. Waltz, 5 on F street to cost \$15,000; W. P. Vale, an \$8,000 residence; Weller & Repetti, 3 dwellings to cost \$20,000; Theodore A. Harding, 5 two-story houses; B. Stinemetz, a \$10,000 dwelling, and Wm. W. Hough, two brick dwellings to cost \$5,100.

Waycross, Ga.—The opera-house lately mentioned as to be built by the Waycross Opera-house Co. will cost \$12,000. It will be 55x95 feet. Bids are being received.

Wilmington, N. C.—The Educational Board of New Hanover county have purchased a site, 132x200 feet, on which to erect a school building, two-story, with 8 rooms. It will cost about \$9,000.

TO PUT IN ELECTRIC-LIGHT PLANT.—TARBORO, N. C., April 23, 1889.—Our citizens by a very large majority voted on 2nd inst. to issue bonds for the purpose of building a city hall and putting in a light plant for streets, stores and dwellings. A test of our new water works just completed by A. L. Spandour, contractor, was highly satisfactory. W. E. FOUNTAIN, Mayor.

WILL BUILD WATER WORKS.—MT. STERLING, KY., April 23, 1889.—We propose to erect water works here in the near future. Have our company organized and secured exclusive franchise for 30 years in the city. The exact plan has not been adopted, but desire all the competition from various contractors. LEWIS APPERSON.

WATER WORKS TO BE BUILT.—GAINESVILLE, GA., April 23, 1889.—Water works will be established at this place. FLETCHER M. JOHNSON, Mayor.

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Bagging Machinery.—J. E. Atkins, Mayesville, S. C., will probably want machinery for manufacturing pine-straw bagging. He has power.

Barrel Machinery.—W. D. Keech, Box 121, Tarboro, N. C., wants information as to machinery for manufacturing barrels; also information in regard to the business.

Brick Machinery.—F. W. Farquar, Enaley, Ala., wants catalogues of brick machinery.

Canning Machinery.—Hugh L. Watson, Trinity, La., wants all machinery for a canning factory except boiler and engine. Capacity is to be 2,000 cans daily.

Canning Machinery.—John F. Bailey, Stockbridge, Ga., wants circulars of canning and evaporating machinery.

Cars.—The Park City Street Railway Co., Bowling Green, Ky., will buy cars.

Coal Mining Plant, &c.—The Sloss Iron & Steel Co., Birmingham, Ala., want to purchase two winding engines, one steam pump, four 40 horse-power steam boilers, one 20 horse-power steam boiler, (quotations on) wood or rubber-lined cast iron sheaves for bull wheels, &c.; one engine to run coal crusher, 1,400 feet of 2½-inch bowl joint cast iron pipe, wire rope, iron chains, ladders, turntables, screens, two pairs of mine scales, one coal crusher, bolts, washers, &c. Full particulars as to quantities, &c., will be furnished on application to E. M. Tutwiler, general superintendent of mines, Coalburg, Ala.

Corn Mill, &c.—J. T. Lawrence, Cedar Bluff, Ala., wants one 20 horse-power boiler and engine, one 36-inch corn mill, one feed mill, one cotton gin, feeder and condenser and one cotton press.

Creamery.—J. B. Painter, Dublin, Va., wants full outfit of machinery for a creamery to be operated on the cream-gathering plan.

Electric-light Machinery.—The Harrodsburg Electric Light & Power Co., Harrodsburg, Ky., are ready for bids for machinery for their plant.

Elevator.—Overall & Du Mont, Mobile, Ala., want a freight elevator of 1,500 lbs. capacity.

Elevator.—W. T. Owen, Anniston, Ala., may want an elevator for candy factory.

Gas or Electric-light Plant.—The Birmingham Jockey Club, Birmingham, Ala., may want a gas or electric-light plant.

Gin and Press.—Dr. Holimon, Magnet, Ark., wants a cotton gin and press.

Hoisting Engine.—Felix Walter, Emmittsburg, Md., wants an 8 horse-power hoisting engine.

Iron Balcony, &c.—J. S. Verner, Columbia, S. C., will receive proposals until June 1 for furnishing and erecting complete iron balcony, brackets and two flights of stairs, three feet wide, at the State House.

Iron Furnace.—Thomas H. Hays, 155 Third avenue, Louisville, Ky., wants to correspond with any parties owning a 75 to 100-ton iron furnace not now in blast and who desire a change of location.

Knitting Machinery.—J. W. Scott & Co., Greensboro, N. C., want information as to machinery for a knitting factory.

Laboratory.—The University of Tennessee, Knoxville, Tenn., will purchase outfit of machinery, &c., for chemical laboratory.

Lime Kilns.—C. H. Pearson & Co., Baltimore, Md., want machinery for 10 lime kilns of most improved design.

Mortiser and Tenoner.—L. E. Grabs, Five Forks, N. C., wants a power mortiser and tenoner.

Oil Machinery.—The Laurens Oil & Fertilizer Co., Laurens, S. C., want outfit of latest and best improved machinery for a 30-ton cotton-seed oil mill.

Paper box machinery is wanted by Wellhouse & Sons, Atlanta, Ga.

Peg Machinery.—T. J. Gilling, Morganton, N. C., wants to buy machinery for manufacturing shoe pegs.

Pipe.—L. J. Wagner, superintendent water works at Rome, Ga., will receive proposals until May 13 for furnishing and laying 325 feet cast iron water pipe and one fire hydrant.

Railroad.—C. B. Magruder and others, Rock Ledge, Fla., contemplate building a narrow-gauge road or a tram-road 3½ miles long and want information.

Refrigerator.—Dunham & Hotchkiss, Brunswick, Ga., want the address of any parties who can give information regarding a refrigerator which makes its own ice.

Saw Mills.—Otway Cuffe, of the Middleborough Town Co., Middleborough, Ky., wants to contract with the owners of two or three portable saw mills to saw lumber for his company for this year.

Scales, Trucks, &c.—Wilhoite & Cortner, Wartrace, Tenn., want scales and trucks for grain warehouse.

Shingle Mill, &c.—W. J. Thomas, Benton, La., wants a moderate size shingle mill, a 12 or 15 horse-power boiler for cotton gin and a friction feed for saw mill.

Slab Elevator, &c.—M. S. Smith, Valdosta, Ga., wants a slab elevator and possibly a planer.

Soap Machinery.—The Wood-Haworth Co., Louisville, Ky., want to purchase soap milling machinery.

Spoke and Handle Machinery.—F. Randle, Olney, Mich., wants prices on machinery for a first-class spoke and handle factory.

Water Works.—The Mount Sterling Water Works Co., Mount Sterling, Ky., will build water works and want bids from various contractors.

Woodenware Machinery.—John A. Caplen, Galveston, Texas, will shortly want full outfit of machinery for a large woodenware factory.

Wood-working Machinery.—W. D. Heape, Florence, S. C., wants bids on machinery for manufacturing furniture, spokes, handles, hubs, &c.

DRILLING FOR NATURAL GAS.—BRANDENBURG, KY., April 22, 1889.—We are sinking a well and will have it completed in about two weeks, and we have exclusive privileges for furnishing this town. The Crown Natural Gas Co. was organized here last week; George H. Casperke, president; E. R. Boundrant, secretary and treasurer. Authorized capital \$1,000,000.

BRANDENBURG MANUFACTURING CO.,
GEO. H. CASPERKE, Secretary.

NATURAL GAS WELLS TO BE DRILLED.—BRANDENBURG, KY., April 25, 1889.—Excelsior Gas & Mining Co. was organized April 10th, 1889. Capital stock \$1,000,000. Controls 5,300 acres of land. Will engage resident parties to do well digging.

J. M. RICHARDSON, Secty. and Treas.

TO BUILD WATER WORKS.—LULING, TEXAS, April 20, 1889.—As quickly as we can get fully organized expect to erect an entirely new system of water works. Stand pipe to be 12x100 feet, 8 inch main, 1 mile smaller mains 4-inch. Power pump to be run by water wheel, 500,000 gallons minimum capacity per day.

LULING WATER CO.

HETHERINGTON & NASON,

Manufacturers and Dealers in Supplies for

Boiler Makers, Machinists, Railroads, Steam & Gas Fitters

Boiler Plate and Tank Iron, Lap-Welded Pipe and Boiler Tubes, Boiler and Sheet Iron Rivets, Steam Brass Goods and Engine Trimmings, Iron Valves and Fittings, Pipe Workers' and Machinists' Tools, Wood and Iron Pulleys, Belting, Hose and Packing, SEWER PIPE, FIRE BRICK and CLAY.

405 and 407 Elm Street,

Dallas, Texas.

O. R. MAKEPEACE & CO.
ARCHITECTS and MILL ENGINEERS
PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton and Woolen Mills.

LOCKWOOD, GREENE & CO.
MILL
ENGINEERS,
NEWBURYPORT, MASS.

PLANS AND SPECIFICATIONS FURNISHED FOR THE CONSTRUCTION OF EQUIPMENT AND ORGANIZATION OF COTTON AND WOOLEN MILLS.

JONES & MACK
Formerly JONES & ROGERS,
MECHANICAL ENGINEERS,
Designers of Standard and special Machinery. Drawing of any description.
BLUE PRINTING.
Write for estimates on what you want.
We never sleep. 5 West 4th St., CINCINNATI, O.

CAR PILE DRIVERS

Extension truss, to drive from one bent to another. 30 feet lateral swing, 9 feet from center. Fitted up with our new-style Nasmyth Steam Pile Drivers.
VULCAN IRON WORKS, CHICAGO.

The BOOMER & BOSCHERT
KNUCKLE JOINT
PRESS
FOR BALING
Cloth, Paper, Yarn, &c.
Or for any other purpose requiring great pressure.
BOOMER & BOSCHERT PRESS CO.
329 W. Water St., Syracuse, N. Y.

PROPOSALS.

PROPOSALS for erecting a system of water works at Johnson City, Tenn., will be received until 23d May, 1889. Address F. P. BAXTER, Mayor, or J. A. C. LUSK, Recorder.

TO JAIL BUILDERS.—Proposals will be received by the Board of Commissioners of Pasquotank county, North Carolina until Monday, May 27, 1889, at 12 M for the erection of a Jail Building in Elizabeth City, N. C., according to plans and specifications on file in said office. Also for erecting therein two steel cells of ½ inch steel, with two steel cells of ¼ inch steel on top, and necessary corridor in front; iron stair to second tier of cells and landing. Also two iron lined cells suitable for insane persons, iron window guards, iron doors and other iron work necessary for said Building Plans; specifications and samples of material for steel and iron work to be submitted with bids. Proposals will be received for the building alone, or for steel and iron work, or for the building and steel and iron work complete. The Board reserves the right to reject any or all bids. Elizabeth City, N. C., April 22, 1889.

To Railroad Contractors.

The Middleborough Town Company, Bell Co. (Cumberland Gap) invite proposals looking to the building and immediate operation of a Belt line of railroad, standard gauge, to encircle the Valley of Yellow Creek and the Town of Middleborough. Valuable concessions and rights of way will be accorded to satisfactory bidders. The length of the line would be about 19 miles, and the traffic coal, coke and iron ore. Address

ALEXANDER A. ARTHUR,
Gen'l Mgr., Middleborough Town Co.
KNOXVILLE, TENN.

BANKERS AND BROKERS.

WILSON, COLSTON & CO.
Bankers & Brokers.

216 E. Baltimore Street, Baltimore, Md.

Investment and Miscellaneous Securities a specialty, and large lines handled. Exceptional facilities for dealings in all classes of Southern Bonds. Loans on Collateral Securities negotiated. Quotations and information furnished on application, and correspondence invited.

MINERS' LAMPS,
BRASS COLLAR & BREAST
IN ONE PIECE
KEROSENE OR WHALE OIL
SPOUT AND BODY
IN ONE PIECE
NO SEAM TO MELT
HUNT & CONNELL, Limited, SCRANTON, PA.

JOHN L. WILLIAMS & SON,
BANKERS,

—RICHMOND, VA.
Our MANUAL OF INVESTMENTS, the largest publication of the kind published by any banking house in the United States, may be had upon application by parties interested.

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ESTABLISHED 1811.
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BROWN BROTHERS & CO.
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Foreign and Domestic Bankers,
AND MEMBERS OF THE
Baltimore, New York and Philadelphia
Stock Exchanges.

(Private wire between Baltimore, Boston, Philadelphia and New York.)
Interest allowed on deposits of Banks, Bankers, Corporations and individuals. Railroad, Municipal and other Loans Negotiated, and advances made on Grain, Cotton, Stocks and Bonds, and other approved collateral.

BUY AND SELL BILLS OF EXCHANGE
on Great Britain and Ireland, France, Germany, Holland, British West Indies and other foreign points.
Issue Commercial and Travelers' Letters of Credit.

IN STERLING, available in any part of the world; IN FRANCS, for use in Martinique and Guadeloupe; and IN DOLLARS, for use in this country, Canada, Mexico, the West Indies and South America.

Make Cable and Telegraphic Transfers of Money.
Drafts Collected in all parts of the World.

BROWN, SHIPLEY & CO., LONDON.
Financial Agents of the United States Government in England.

Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.
BALTIMORE, May 1, 1889.

NEW YORK.	AMERICAN.
Virginia 3-4 10-40's.....	25 1/4
Virginia 7's, new.....	26 1/2
Virginia Canal Coupons, N. F.....	27 1/2
Virginia 10-20 Coupons, N. F.....	28
N. Carolina 4's.....	93 1/4
N. Carolina 6's.....	124
Wilmington & Weldon 5's.....	121
W. Va. Col. & Aug. 6's.....	129
Atlanta & Char. 1st 7's.....	122 1/4
Cal. & Green, 1st, 6's.....	103 1/4
Cal. & Green, 2d, 6's.....	65
Va. Midland, 2d, 6's.....	125
Va. Midland, 3d, 6's.....	126
Va. Midland, 4th, 6's.....	99
Char., C. & Aug. 1st, 7's.....	120
Char., C. & Aug. 2d, 7's.....	125 1/2
Cal. Pacific 1st, 6's.....	121 1/4
Cal. Pacific 2d, 6's.....	64 1/2
Cape Fear & V. Valley 6's, A.....	105
Cape Fear & V. Valley 6's, B.....	104
Consolidated Gas Stock.....	45 1/4
Canton Co.....	20

(Members of Baltimore Stock Exchange.)

A Hint to Southern Business Men.

WORCESTER, MASS., April 26, 1889.

Editor Manufacturers' Record:

A careful reader of the MANUFACTURERS' RECORD for a number of years, I have become a firm believer in the South, and entertain as enthusiastic views concerning its future as any one of its own citizens. Moreover, I am, considering my means, something of a property-holder in that section, and intend, if I am prospered, to make larger investments hereafter. I occasionally take a trip to the South Atlantic and Gulf States to confirm by my own observations the impressions made by your bright correspondents, and often I induce friends and acquaintances to go over the same ground. I state these things as preliminary to the words of caution I am about to write.

Our Southern friends coming North to enlist us in their enterprises do not, as a rule, understand the value of time. They have yet to learn that in this part of the country time is money. Every man of any account makes definite engagements and expects to keep them to the minute. If anything unexpected interferes, he notifies the parties in interest promptly, that they may not be disappointed. When our Southern friends come here they pursue a different course. I have known more than one instance in which men of large affairs and influencing much capital have been delayed for hours by the failure of Southern gentlemen to keep time appointments made at the request of the latter and in their interest. The effect of this is to create a doubt as to the business qualifications of men who are not punctual. Cannot the MANUFACTURERS' RECORD give a hint to our Southern friends about to come North to enlist capital in their enterprises to be always on time? If you can, and the hint is taken, it will greatly advance all interests. E. S. L.

Our correspondent gives a hint which, we trust, will be heeded. We regret to say that Southern business men are too prone to neglect to keep engagements promptly, to fail to answer business letters when received, and to leave undone many little things of this kind that often result in serious financial losses to themselves. The MANUFACTURERS' RECORD has had very many complaints of this character, and many of them were not so mildly expressed as the letter of E. S. L.

MR. DAVID BOYLE, manufacturer of ice machinery, Chicago, Ill., writes to the MANUFACTURERS' RECORD under date of April 19th as follows:

Enclosed please find contract signed, being the third renewal of my advertisement in your most valuable paper.

I am pleased to state my ad. in your paper is indispensable to my business. It brings me constant enquiries from every point of the South.

Go on and prosper, for your work has been eminently beneficial to my old home, the South.

THE excursion of New England capitalists to Denison, Texas, last week resulted in the cash investment there of over \$2,000,000. Another and larger excursion will go down in May, and still greater investments are expected there. Denison has joined the procession of booming towns.

A 30,000-SPINDLE COTTON MILL—SPARTANBURG, S. C., April 27, 1889.—The plant has been increased to a 30,000-spindle mill; will use steam power; also, the most improved machinery and lights.

SPARTANBURG MFG. CO.

ELECTRIC LIGHT AND POWER PLANT—AMERICUS, GA., April 25, 1889.—The Americus Light & Power Co. has closed a contract with Thomson & Houston people to put in an electric plant for arc and incandescent lights; also motive power for electric street railway.

W. E. MURPHY, Secty.

BUILDING REDUCTION WORKS—CHARLOTTE, N. C., April 27, 1889.—The Carolina Reduction Works are in process of erection on the location of the old Adams works. We propose to run 20 tons per day with present plant, and increase as occasion warrants. We are prepared to treat for gold and silver ores. All our machinery but shafting, pulleys and belting is contracted for.

L. R. BARTLETT, Treas.

TO BUILD BIG COTTON OIL MILL—HOUSTON, TEX., April 26, 1889.—The Merchants & Planters' Oil Co., of Houston, has been chartered and machinery bought for a 150-ton mill. The erection of buildings, etc., will begin at an early day.

T. W. HOUSE.

WILL DOUBLE PULP MILL—GREEN FOREST, VA., April 24, 1889.—We are now running our pulp mill, capacity 2½ tons dry weight per 24 hours. We have ordered the machinery to double the above, which will be placed in position.

CLEMMITT & SADLER.

OPENING NEW COAL MINES—BLOCTON, ALA., April 23, 1889.—The Cahaba Coal Mining Co. are opening four mere mines and building one mile of track to connect them with their main line. When completed they will have ten mines in operation and an output of 3,500 tons a day.

C.

CONTRACTED TO BUILD RAILROAD—COLUMBIA, S. C., April 24, 1889.—On the 19th inst. contracts were closed between the Columbia, Newberry & Laurens Railroad and the Congaree Construction Co., binding the latter to complete and equip the C. N. & L. R. R. by May 1, 1890.

CHAS. C. WILSON, C. E.

FIRE-BRICK WORKS—FORT PAYNE, ALA., April 25, 1889.—The Fort Payne Coal & Iron Co. will put in a fire-brick plant that will cost \$35,000 to \$40,000. Mr. Taylor, superintendent Mt. Savage (Md.) Fire-brick Works, has resigned his position and accepted an offer from the Fort Payne Co. to take charge of their works.

FORT PAYNE COAL & IRON CO.

TO DEVELOP MINERAL LANDS—DOUGLASVILLE, GA., April 25, 1889.—Our company is fully organized and expects to proceed at once to develop its rich mineral lands, especially its magnetic iron ore, corundum, ochre, plumbago and mica. Also to form a company to build railroads on the most liberal charter ever granted in Georgia. The company can show great inducements to capitalists to invest, based on merits alone. The president and vice-president are East now on business.

DOUGLASVILLE MIN'L LAND & IMP. CO.

COTTON YARN MILL—JONESBORO, N. C., April 22, 1889.—I have just organized the Staley Mills Co. with a capital of \$10,000. They have bought suitable buildings and will immediately put in 1,200 spindles for making carpet yarns, which will be new machinery or practically new. J. E. TAYLOR.

WILL ADD MACHINERY—RANDLEMAN, N. C., April 24, 1889.—I have bought out the Powhatan Manufacturing Co., and this summer intend to put in about 1,800 spindles, 14 or 18 cards, 1 lapper, engine and boiler; in other words, machinery to supply 1,800 spindles. I have already 68 looms, and want spinning enough to supply them.

C. C. RANDLEMAN.

WILL REBUILD BOX FACTORY—ATLANTA, GA., April 25, 1889.—Will purchase paper box machinery and rebuild at once our burned factory. Are in another place now temporary, and able to fill all orders promptly.

WELLHOUSE & SONS.

CONTEMPLATE BUILDING A HOTEL—TALLADEGA, ALA., April 22, 1889.—We plan to build a hotel at this place. Have a lot of 8 acres with natural shade and only about 800 feet from the square. Will build hotel with modern improvements.

O. J. HINKLEY.

THE Hotel Albert, at New Berne, under the management of M. Patterson & Son, is fast becoming a popular house. It is the first really good hotel which the people of that place have had, and furnishes an oasis in the hotel history there which is quite refreshing. It is a large brick structure with handsome rooms and all latest improvements. The table is well supplied with all the delicacies of the season. There is a good livery stable in connection, under the management of J. W. Stewart, where first-class turnouts can be obtained, and all in all it is an excellent place to stop.

WANTED.—An experienced man as superintendent of Shoe Factory; also first-class tanner. Southern men preferred. Highest references required. TROY SHOE FACTORY, Troy, Ala.

Wanted!

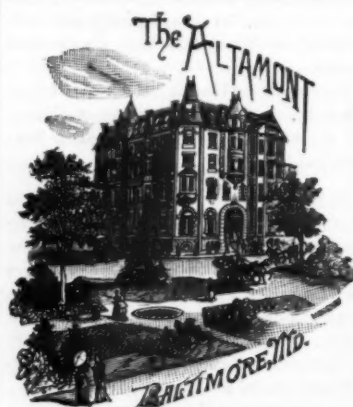
To sell, to man of experience, an interest in a canning and preserving factory. Purchaser must assume active management of business. Capacity 30,000 cans in 10 hours. Surroundings agreeable, good water, healthy location, labor cheap, abundance of vegetables and fruit, good schools and churches. Splendid chance for good man.

Address J. P. R.,

Care MANUFACTURERS' RECORD.

ELIAS EDMONDS,
Attorney at Law
SAN ANTONIO, TEXAS.

Makes the Litigation of Land Titles a specialty. Will also Lend Money for non-residents upon the best real estate security.



ENTIRELY NEW. HOME-LIKE. ELEGANT.
HIGHEST ELEVATION ON HANDSOME STREET
American Plan, \$3.00 to \$4.50 per day.
Telegraph for Rooms at our expense.
C. WARNER STORK, Proprietor.

FOR SALE.

Or, if desired, will place property in as so much stock.

Large Brick Cotton Mill.

Capacity 200 looms. Operative houses. Eight hundred acres of well timbered lands. Four to five thousand bales cotton received near the mill. For further information, address

M. M. SMITH,

Antaugaville, Ala.

J. H. PRATT, Analytical Chemist,

Laboratory 1826 Third Ave., Birmingham, Ala.

Analyses of Ores, Slags and Coals carefully made Reports on properties, etc.

Cotton and Woolen MACHINERY.

50 Crompton Fancy Cotton Looms, nearly new, 36 inch reed space, for 12 Harnesses, 4 boxes at one end, 1 at the other.

My Store Houses here have over 2 ACRES of floorage, which is covered with good machinery, including nearly full systems for Cotton and Woolen Mills.

JEREMIAH CLARK,

Lowell, Mass. Office, 63 Dutton St.

Valuable Manufacturing Property FOR SALE.

The Swift Creek Cotton Mfg. Co.

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Metallic Iron.....	55 per cent.
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Eastern Lumber Markets.

[Special correspondence MANUFACTURERS' RECORD.]

NEW YORK, April 30, 1889.

Comparing market conditions week by week, but very little difference is discovered. We have advices this week from quite a number of large lumber centers West and East, and find that no more than a quiet, steady distribution of all kinds of lumbers is in progress. Prices that were fixed a month ago have not been shaded very much. The reason is that all dealers expect a heavy demand from this on, and as margins are already light, they are anxious to have the benefit of them. Fears have been expressed among the smaller dealers that the large dealers would endeavor to monopolize the trade, but thus far they have not done so. Western lumber houses are well represented here, and it is very pleasing to observe that uniform prices are insisted upon. The only thing to be said is that there is activity on all sides, not of that rushing sort which sometimes lifts dealers off their feet and leads them to mark prices up, but only a steady covering of actual requirements both in the city and in the country. The country trade is picking up for white pine and yellow pine products a little better than city. Roads are in better condition and that accounts for it. Building operations are always a little slower in the smaller cities and towns than in the larger ones, and country work lags behind that. If we can only sustain present prices throughout the season everything will be satisfactory. The lake is opening up, and lumber is being hurried forward. Rates to New York from the lakes are \$2.25. Very large stocks will be accumulated during the next sixty days at Albany. The Buffalo Lumbermen's Exchange held its annual banquet last Saturday. There is a good demand for 1-inch uppers in white pine. A large amount of lumber has been sold for delivery between now and June 1st. There are very moderate stocks of spruce here and at other New York markets. We are doing an excellent car trade throughout the interior of the State. Throughout the New England States there is a good demand, but dealers are buying as though they looked for a heavier stock of lumber before midsummer. The architects have a large amount of work in hand, which will reach the builders in about two weeks. At Boston spruce is selling at \$14 for random stuff. Hemlock at \$12 to \$13. There is an abundant supply of Michigan pine in the Boston market, and there is a very liberal movement throughout all New England. Yellow pine is selling well, and no cutting of prices has been heard of. Freights continue at \$18 from Gulf ports and \$7 from South Atlantic ports.

The hemlock shipments continue heavy and no accumulation is visible at the larger yards. Dealers say an immense amount of good hemlock will be sold here during the next sixty days, for work that is to be begun by July 1st. A noticeable feature of the lumber trade here is that stocks are bought in almost all cases. Last year stocks were bought in a hand-to-mouth sort of way. The fact that so many dealers are buying in advance has strengthened the market, and quotations are a little ahead of last year's. The only exception to this statement is where very large transactions take place.

This week is a most stirring one in this city. New York is crowded with people from all parts of the country. Business has been suspended at all of the exchanges. Men who have not known what a holiday is have been dragged into the excitement of the Centennial Celebration, and are not thinking of business. By the latter end of the week, however, they will all be back at work.

The hardwoods are not in such large supply as to induce wholesalers to crowd their stock. They are simply holding at quoted rates. A few retailers have been endeavoring to stock up at the usual concessions, but

for very good reasons they have been denied. Good ash of all thicknesses is very active. Black ash is also in better request than we have known it for three or four months. One-inch stuff is worth \$36 for white. For black ash one-inch is \$26 to \$28. We have been receiving a good deal of birch, more or less butternut and considerable juniper. In cherry there is a fair demand for clear-faced strips. Cherry brings about \$18 for culls; 1-inch rejects \$38 to \$40. Cotton wood has been selling very freely lately, but there is no scarcity of stocks. One-inch stuff is worth \$20 to \$21. Cypress in all lengths ranges from \$30 to \$32. Machine dressed cypress shingles 5x24 at \$1. There is a good deal of maple coming into this market, but it is rather difficult to move. Dealers report a scarcity of quarter-sawn oak. It is impossible to report this market correctly, because dealers have different opinions. The best way is to run stuff in and take its chance. White oak for cabinet purposes is selling at \$36 to \$40; bridge bills \$24; red oak, plain, \$34; quartered, six inches and up, \$40 to \$44. Sycamore is in good demand for tobacco-box purposes. Walnut is dull. This is an old story. The export demand is not reliable. Mahogany is coming in competition with it. The demand for poplar is first-class. Stocks are large, owing to heavy receipts during the past two weeks. There is plenty of room, however, for all the walnut that comes. Cherry logs are \$40 to \$60. White oak logs are worth \$35 to \$38. Red cedar from Florida brings 45 to 60 cts. per cubic foot. Mexican mahogany 11 to 14 cts.; Cuban 6 to 9 cts. Mexican cedar is worth 10 cts. Railroad ties are held at 70. Yellow pine 55 cts. for 6x7.

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1/4194304 in. x 6 ft. and 12 ft.; 1/8388608 in. x 6 ft. and 12 ft.; 1/16777216 in. x 6 ft. and 12 ft.; 1/33554432 in. x 6 ft. and 12 ft.; 1/67108864 in. x 6 ft. and 12 ft.; 1/134217728 in. x 6 ft. and 12 ft.; 1/268435456 in. x 6 ft. and 12 ft.; 1/536870912 in. x 6 ft. and 12 ft.; 1/1073741824 in. x 6 ft. and 12 ft.; 1/2147483648 in. x 6 ft. and 12 ft.; 1/4294967296 in. x 6 ft. and 12 ft.; 1/8589934592 in. x 6 ft. and 12 ft.; 1/17179869184 in. x 6 ft. and 12 ft.; 1/34359738368 in. x 6 ft. and 12 ft.; 1/68719476736 in. x 6 ft. and 12 ft.; 1/137438953472 in. x 6 ft. and 12 ft.; 1/274877906944 in. x 6 ft. and 12 ft.; 1/549755813888 in. x 6 ft. and 12 ft.; 1/1099511627776 in. x 6 ft. and 12 ft.; 1/2199023255552 in. x 6 ft. and 12 ft.; 1/4398046511104 in. x 6 ft. and 12 ft.; 1/8796093022208 in. x 6 ft. and 12 ft.; 1/17592186044416 in. x 6 ft. and 12 ft.; 1/35184372088832 in. x 6 ft. and 12 ft.; 1/70368744177664 in. x 6 ft. and 12 ft.; 1/140737488355328 in. x 6 ft. and 12 ft.; 1/281474976710656 in. x 6 ft. and 12 ft.; 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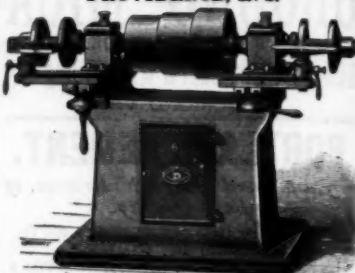
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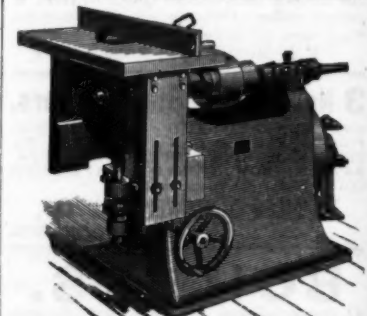
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No. 12 Six-roll Surfer and Matcher.

The accompanying engraving illustrates a new combined planer and matcher built by Messrs. Goodell & Waters, Philadelphia. The No 12 is really a new departure,

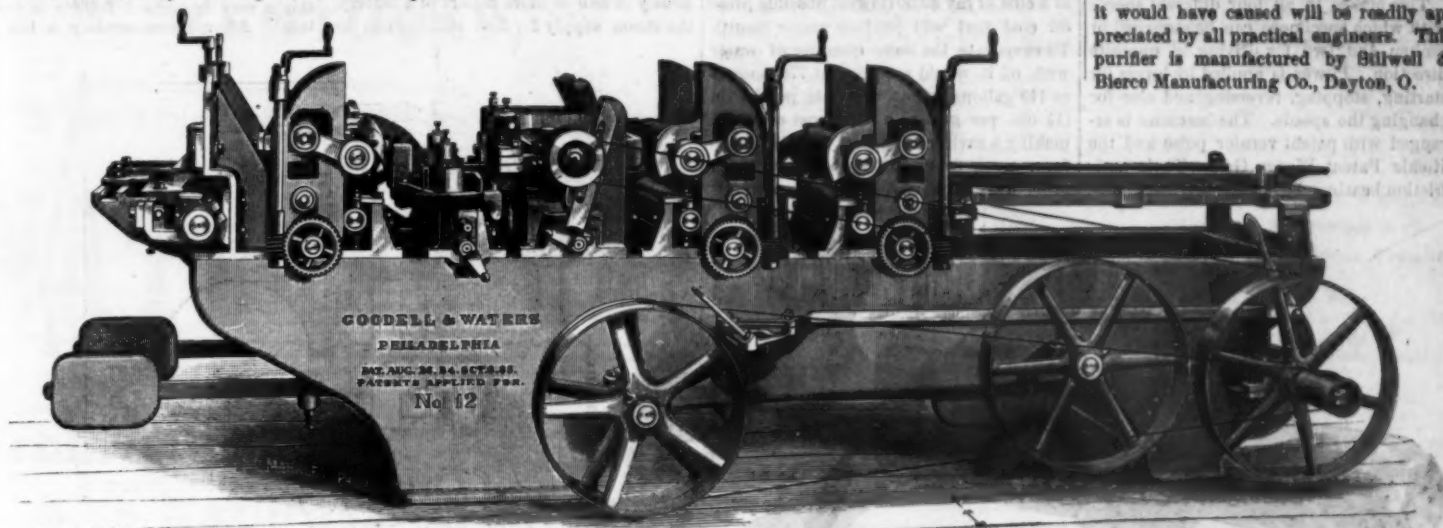
allowing free access to the under cutter-head. A glance at the engraving will convince the practical reader that the manufacturers have accomplished all they claim for this machine. For prices we refer our readers to Messrs. Goodell & Waters, Philadelphia.

Boiler Incrustation.

The evils and losses growing out of incrustation in steam boilers is an old story, but one of such great importance as to justify frequent reference to it.

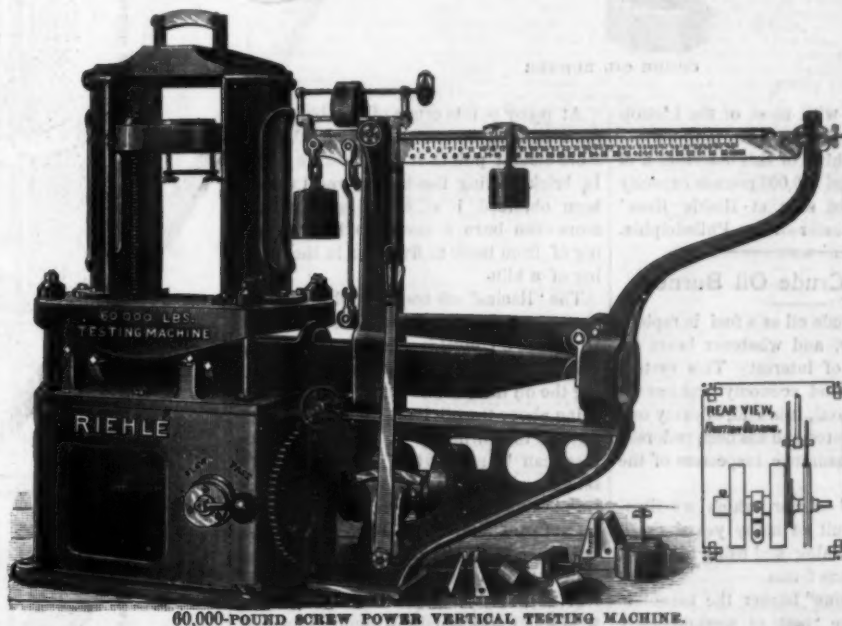
A forcible reminder of what impurities

It is not an imaginary sketch, but is made from a photograph of the deposits obtained at one cleaning out of the purifier. But for the use of this purifier these deposits of lime would have been inside the boilers, and the great damage to the boilers and increased consumption of fuel it would have caused will be readily appreciated by all practical engineers. This purifier is manufactured by Stillwell & Bierce Manufacturing Co., Dayton, O.



NO. 2 SIX ROLL SURFACER AND MATCHER

and with many new and valuable features it is calculated to meet the demands of a general jobbing shop working flooring, ceiling, novelty and German siding, mouldings, etc. It will double or single surface 24-inch wide up to 6 inch thick and match 10 inch wide. The top and under cutter heads are four sided, slotted on two sides and run in long babbitted bearings. There are six feed rolls, six inches in diameter, driven by a patented system of expansion gearing which the manufacturers claim unequalled for simplicity and durability. The gears are fastened to shafts that run in long boxes provided with excellent facilities for oiling, and the rolls under all conditions remain parallel. All the working parts are in a position to admit plenty of light and not obstructing the chips and shavings, and are not boxed in and obscured from sight as in most machines of this class, thus giving the operator a clear and comprehensive view of the various adjustments at a glance. Special attention is directed to the improved method of arranging the matchers. Each head is adjusted independently, and when set to the



60,000-POUND SCREW POWER VERTICAL TESTING MACHINE.

The Riehle 60,000 Pounds Screw Power Vertical Testing Machine.

We illustrate in this number the Riehle Screw Power Vertical Testing machine of 60,000 pounds capacity. It is arranged somewhat similar to the 100,000 pounds machine illustrated a few weeks ago in a previous number of our paper, and fully described at that time.

This machine is adapted for those who do not want to use one of larger capacity. In all the Riehle testing machines the levers are adjusted to the standard of the United States Government.

The dimensions of these machines are as follows: height 6 feet; length 8 feet; width 2 feet 5 inches; weight 3,800 pounds.

It is arranged to take in tensile specimens 8 inches or less with 25 per cent. elongation for 18-inch specimens, or more for shorter lengths. Round specimens 1 1/2 inch in diameter or less. Square specimens 1 1/2 inch square or less. Flat specimens 2 1/2 x 1 inch or less. Transverse specimens 20-inch or less to 6 inches long. Compression specimens 8 inches long or less. Compression surfaces 6 inches in diameter. Motion of pulley head 23 inch.

Speeds for this machine are as follows: maximum speed for testing and light test 4



BOILER INCRUSTATION.

required position are firmly and positively held in place. The end of the long guide is attached to the matcher plate and travels with it and has an adjusting screw to regulate depth of cut of side head. The guides, together with the table may be removed,

THE Gordon Steam Pump Co., of Hamilton, O., announce that they have entirely remodeled their well-known pumping machinery, and they now offer their duplex pumps at most favorable prices, with confident claims of their superior merits.

are contained in ordinary feed-water for boilers is afforded by the engraving herewith presented of a heap of lime deposits retained in a Stillwell live steam purifier in use on the boilers at the City Water Works, Dayton, O.

inches per minute; quick speed for testing 1 inch in one minute; minimum speed for testing 1-10 inch per minute or 1 inch in 10 minutes; intermediate speed for testing 1 inch in 3½ minutes; maximum reverse speeds 4 inches per minute; minimum reverse speeds 1 inch in 3½ minutes.

This makes in all four different speeds with which specimens can be stretched or broken and two for driving in opposite direction. Power is applied by levers for starting, stopping, reversing and also for changing the speeds. The machine is arranged with patent vernier poise and the Riehle Patent Wedge Grip. Their anti-friction bearings have hardened steel balls,

given grade of coal to have an evaporating capacity of 7 pounds of water (a fair average) to a pound of coal, and crude oil 18 pounds of water to a pound of oil (again a fair and safe average with a properly constructed burner), we will evaporate then with a ton of coal, 14,000 pounds of water at a cost of say \$2.50 (lowest possible price for coal that will produce above result). To evaporate the same quantity of water with oil it would require but 778 pounds or 119 gallons, which, at 63 cts per barrel (1½ cts per gallon) a total cost of \$1.78, making a saving as against coal of 72 cts. for a given evaporation, or to put it another way, a coal saving of 72 cts. a ton "

minutes, the auxiliary will furnish sufficient steam for the burner in large boiler, and when the large boiler has generated sufficient steam to supply its own burner, the auxiliary can be shut down till next time of firing.

In cases where steam is kept up continuously in one or more boilers of a battery, the steam supply for first starting can be

burner, which alone draws steam to and through the burner. * * * I cannot recommend too highly the device of auxiliary boiler used for getting up steam to start fire under main boilers. By this means all danger from explosion caused by the generation or accumulation of gas or oil under the main boilers, is removed. * * * With regard to safety I consider this a very important feature in the system " After recommending a few addi-



CRUDE OIL BURNER.

which do away with most of the friction so objectionable.

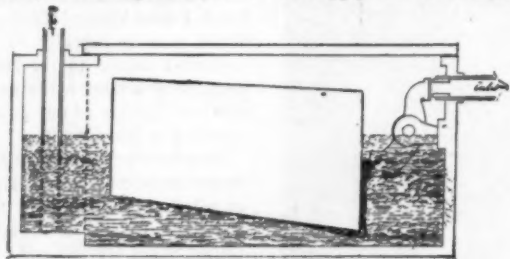
A testing machine of this description of 60,000, 100,000 and 200,000 pounds capacity can generally be seen at Riehle Bros' Works, 9th & Master streets, Philadelphia.

"Racine" Crude Oil Burner.

The use of crude oil as a fuel is rapidly on the increase, and whatever bears on that subject is of interest. This system combines safety and economy, and has received the approval, it is said, of every one who has investigated, and has been endorsed by prominent insurance inspectors of the Northwest.

The "Racine" burner, which we illustrate, is the result of many years' experience in the burning and using of petroleum in its various forms.

For this "Racine" burner the manufacturers claim the "best of workmanship, and the best adjustment, arrangement and adaptation of parts to secure the most thorough atomizing of the oil, and what is of first importance, less liability to become clogged than any of its competitors, and if



OIL TRAP.

by any possibility it should become clogged, the facility to instantaneously clean the same by a single movement." It is made in sizes, suitable for one to 150 horse-power boilers.

"The use of crude oil as a fuel means a steady, uniform heat, under perfect control, more steam produced with any given sized boiler; no coal to handle, no ashes to take away. A fuel saving of fully 25 to 50 per cent, and a saving of almost all labor, one attendant being sufficient for a battery of say 10 boilers."

The following is given as fairly illustrating the saving in fuel: "Granting a

At many points crude oil can be bought for less than 60 cts per barrel, while at more distant points it costs a trifle more. In brick making the best of results have been obtained, i. e., a saving in fuel, a more even burn, a saving in labor, a saving of from three to five days in the burning of a kiln.

The "Racine" oil trap is well illustrated in the cut below. It will be seen that when the oil level is reached, the supply will be cut off by the float rising and closing the oil inlet. The outlet to the burner being above the oil level, and the oil supplied to the burner by the vacuum created, there can be no overflow. Thus are both safety and economy provided for. Each trap is supplied with a strainer (see dotted lines) through which all the oil must pass before reaching the discharge pipe. The well or depression in bottom of the trap is for the accumulation of sediment, which with water accumulations can be drawn off through a cock in the bottom of trap.

The "Racine" fuel regulator is set to any desired steam pressure. When the pressure at which it has been set is reached, the supply of oil and steam will be cut off.

It is more economical to stop the supply of fuel than to let the steam escape at the safety valve. When the pressure drops the supply will instantly come again, and be ignited by the hot bricks of the furnace. Acting simultaneously on the supply of both oil and steam, the regulator keeps the supply properly proportioned.

The auxiliary boiler is a special feature of this oil burning system. It is provided with a small hand air pump with which to supply the atomizer with air, instead of steam, at first firing. After, say 5 or 10 minutes, sufficient steam will be generated to dispense with the air pump. In say 15

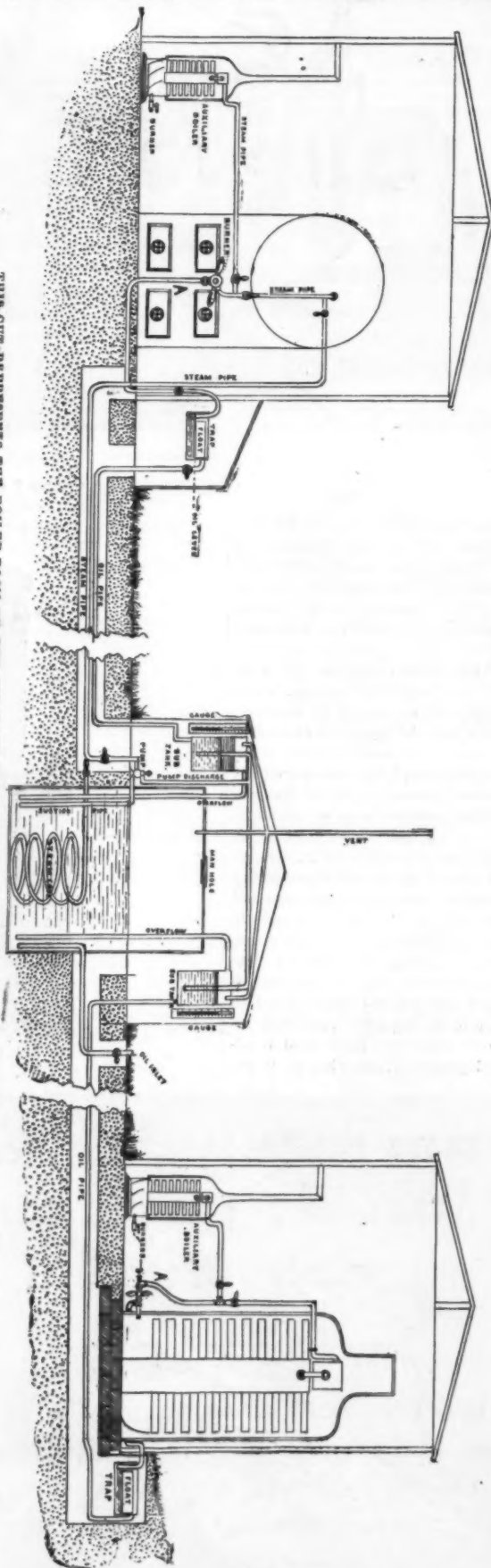
taken from them and the auxiliary dis-pensed with.

Mr. S. H. Seamons, secretary of the Allied Mutual Insurance Companies of Milwaukee, after describing this plant in detail, writes: "I see no possible way by which there can be an overflow of oil in case there should be carelessness on the part of the attendant, or by reason of the fire being extinguished, as no oil can reach the burner except steam is applied to the

tional stop cocks, such as one on each side of the trap, instead of on one side only, he says: "With these recommendations complied with, would consider your method or system for using crude petroleum for fuel the best I have yet seen, and equal in all respects, so far as safety is concerned, with coal or any other fuel."

Any further information desired can be obtained from the Racine Hardware Manufacturing Co., Racine, Wis.

THIS CUT REPRESENTS THE BOILER ROOM OF TWO SEPARATE FACTORIES, TAKING OIL FROM ONE TANK, AND IS ONLY SUGGESTIVE.



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Louisville is the Largest Manufacturing City of the South, with more railroads and rivers than any point in the whole South.

Lumber and Iron are cheaper in Louisville than anywhere else in the United States, Louisville being the Largest Iron Storage Market in the country.

Address,

YOUNG E. ALLISON, Secretary,
LOUISVILLE, KY.

Circular of the BUENA VISTA LAND & IMPROVEMENT CO.

On the 10th day of January, 1889, the Buena Vista Co. was organized. At a public meeting of citizens held in Lexington, Va., on the 22d day of January, the subscription books were formally opened. On the 1st day of February the books were closed with \$750,000 capital stock subscribed by the people of our county and State. On the 14th day of February the first annual meeting of the stockholders was held, and the permanent organization of the company effected by the election of a president and nine directors.

LOCATION.

This company has acquired 13,000 acres of land on or near the western slopes of the Blue Ridge mountains, at the junction of the E. & A. and S. V. railroads in Rockbridge county, Va. This tract embraces: 1st. The celebrated Buena Vista estate, which is beyond comparison the most valuable mineral property in the South. It embraces 11,500 acres, covering five miles of the Blue Ridge mineral belt, and contains the most extensive beds of the richest brown hematite ore in the South. It also contains apparently large deposits of manganese.

2d. The Green Forest and Hart's Bottom tracts, embracing about 1,500 acres of beautiful level and gently rolling land, lying immediately on North River and the two railroads above mentioned. This tract immediately adjoins the largest Buena Vista ore beds, and furnishes in connection with that property a site for a manufacturing city which has no superior in the country. It not only commands the vast beds of Buena Vista ore, but is the center of a mineral region within a radius of 30 miles and penetrated by the railroads centering here, which in respect to the quantity, quality and variety of valuable ores, as well as other raw materials, is without parallel.

IRON ORE.

We append the following description and analysis of ores by Prof. M. B. Hardin, of the Virginia Military Institute, and challenge comparison:

LEXINGTON, VA., February 29, 1889.

To the President and Directors Buena Vista Company, Lexington, Va.:

GENTLEMEN—At the request of Colonel W. M. Patton I herewith give you the results of analysis of Buena Vista iron ores made from time to time in this laboratory:

In 100 parts.	5	6	In 100 parts.	5	6
Metallic iron.....	59.00	54.30	Sulphur.....	traces	traces
Phosphorus.....	.175	.184	Phosphorus to 100 parts iron.....	0.348	0.337
Silica.....	0.300	0.310			

No. 5—"New opening," March 1, 1889. No. 6—"Stock heap," June 5, 1889.

Iron sesqui oxide.....	54.31	Phosphoric anhydride.....	0.40
Water.....	10.40	Sulphuric anhydride.....	traces (not detected)
Alumina.....	1.38	Silica.....	0.30
Lime.....	.39		
Magnesia.....	.18	Metallic iron.....	59.00
Manganese oxide.....	.17	Phosphorus.....	.175
Cobalt oxide.....	.05	Silica.....	0.300
Nickel oxide.....	traces	Sulphur.....	traces
Copper oxide.....	traces	Phosphorus to 100 parts of iron.....	0.337
Zinc oxide.....	traces		

I have been often asked how a "limonite" carrying silica and other impurities could contain 59 per cent. or even over 60 per cent. of metallic iron, when a pure typical limonite contains only 59.9 per cent. of the metal. The apparent difficulty arises from a confusion of terms. All brown iron ores are not limonites. Goethite, which resembles limonite, contains 69.9 per cent. of iron, and turgite, which though reddish, is still a hydrated oxide, contains 66.50 per cent. of iron. I may make this matter still clearer by stating that limonite contains 14.4 per cent. of water, goethite 10.1 per cent. and turgite only 5.3 per cent. As turgite very frequently occurs with limonite, as goethite closely resembles the latter, and as iron ore originally deposited as limonite may have subsequently lost some of its water, it is very easy to see how brown iron ores may exist which contain more iron than the brown hematite, properly called limonite.

From what I know of the Buena Vista ores, I think specimen No. 6, taken from "stock heap," is a fair representative. This contains 0.337 phosphorus to the 100 parts of metallic iron, which is equivalent to about 0.31 phosphorus to 100 parts of pig iron. An analysis of a specimen of pig iron from Buena Vista ores showed in 100 parts 93.03 metallic iron and 0.58 phosphorus, a result agreeing pretty closely with that calculated from the analysis of specimen of ore averaged from "stock heap."

In 1886 I made a number of analyses of specimens of Buena Vista ores for Mr. J. H. Bramwell, of the New York Iron & Steel Company. These specimens were collected by Mr. Bramwell himself, and the analyses afford the means of comparing the composition of the ores taken from different beds and openings.

These results are as follows:	1	2	3	4	5
Sesqui oxide of iron.....	73.31	81.33	82.09	71.32	68.0
Sesqui oxide of manganese.....	.04	.06	.14	.10	.10
Sesqui oxide of cobalt and nickel.....	.004	.006	.018	.004	.004
Oxide of zinc.....	traces	traces	traces	traces	traces
Oxide of copper.....	.014	.028	.024	.040	.040
Alumina.....	3.70	.83	.83	3.60	3.60
Lime.....	.78	.65	.37	.81	.81
Magnesia.....	.40	.32	.19	.41	.41
*Sulphuric acid (anhydride).....	Small, not determined.				
Phosphoric acid (anhydride).....	.895	.600	.437	.746	.730
Water.....	9.88	10.86	10.44	10.04	9.85
Silica.....	10.33	4.60	4.62	12.50	12.53
Moisture.....	0.43	0.18	0.48	0.63	0.84
Metallic iron.....	90.983	90.706	90.630	100.06	100.00
Phosphorus.....	0.392	0.303	0.191	0.160	0.148
Silica.....	10.33	4.60	4.61	12.50	12.53
Phosphorus to 100 parts of iron.....	0.430	0.333	0.210	0.160	0.148

The foregoing samples were marked as follows: No. 1. "Lump ore from large exposure on slope called vein No. 4." No. 2. "Lump ore, Hays' Bank." No. 3. "Lump ore from shaft." No. 4. "Concentrated wash ore from shaft." No. 5. "Fine wash ore from shaft."

Very respectfully, M. B. HARDIN.

Also analysis by Prof. Andrew S. McCreath, of Pennsylvania:

PERCENTAGE OF IRON, &c.

Metallic iron.....	54.350	Sulphur.....	.056
Metallic manganese.....	.359	Phosphorus.....	.195

In reference to the extent of these ores, we quote from the report of Prof. John Campbell, late Professor of Geology in Washington and Lee University: "We believe that 10 miles is not an extravagant estimate of the beds of ore, and these beds vary from 5 to 60 feet in width, and average at the lowest possible estimate 8 feet in width, and evidently of great depth. The quantity of ore is practically inexhaustible. All of these extensive ore beds are easily approached and inexpensively mined." The actual average yield of this ore in the Amherst furnace, where it was exclusively used, was 53 per cent., or 1,700 pounds of iron from a 3,000 pounds of ore. The product of this furnace was a high grade of warm blast foundry iron, used in the manufacture of car wheels. It was made at a cost of \$14 per ton, and sold in the beginning of January, 1889, at \$19 50 f. o. b. here. It is estimated by men of practical experience in the iron business that coke iron of superior quality can be manufactured at this point and laid down in the markets at an average maximum cost of \$18 per ton. The cost of producing a ton of coke iron at Green Forest has been computed as follows:

Two tons ore at \$1.00 per ton.....	\$2.00
1 1/4 tons coke.....	3.64
Limestone.....	.40
Labor.....	1.75
Incidentals and repairs.....	1.00

Total..... \$9.79

Leaving an actual profit, through a long period of market quotations, of at least four dollars per ton.

RAILROAD FACILITIES.

The Shenandoah Valley and Norfolk and Western Railroads, under the same management, gives us a direct line to the Pocahontas or Flat-top coal fields. The Richmond & Albemarle and Chesapeake & Ohio Railroads, under the same management, gives us a direct line to the New River and Kanawha coal regions. The Baltimore & Ohio gives us a direct line to the Connellsville coal and coke region. The Baltimore & Ohio and Shenandoah Valley Railroads are direct and competitive lines to the Northern markets. All of the roads here mentioned compete to supply coals and carry away products. The advantages of such a position cannot be over-estimated.

FUEL.

From the foregoing it can be readily seen that no other point in the South can command coals of such superior quality in such abundance, or at less cost.

LABOR.

A plentiful supply of reliable white labor can be obtained at this point. The great predominance of the white population precludes the possibility of race troubles. The few colored people we have here are peaceable, contented and much more reliable than others of the same race in Southern communities. Surrounded by a rich agricultural region, the cost of living here is reduced to a minimum.

CLIMATE.

No other part of the world can boast of a climate so well adapted to industrial pursuits. In winter the temperature rarely falls to zero. In summer it rarely rises to 90. We have neither blizzards nor cyclones. No destructive storms; no serious epidemics or any of the other extreme visitations peculiar to Northern, Southern or Western sections. Our pure, high, dry, healthy and equable climate conduces to the best of health, and furnishes the energies and opportunity for continuous out-door labor.

PURPOSES OF THE COMPANY.

The Buena Vista Company proposes to develop its magnificent ore beds with great energy; to promote the establishment of furnaces, mills and factories of all kinds, and to build a busy manufacturing city, which shall be second to none in the State. As no other point can compete in natural advantages, the company is in a position to offer more attractive and valuable inducements than any other corporation in the South. Capitalists and manufacturers from the North and West, and representatives of every industry from every section are all invited to find at Buena Vista a congenial, healthy, comfortable home and a profitable field for investment and labor. Any one desiring to invest in any kind of manufacturing enterprise will find at Buena Vista all that he could desire in the way of first-class facilities and the greatest variety and abundance of raw material, together with such special and valuable inducements as the company will offer. For further information address

A. T. BARCLAY, President Buena Vista Company, Buena Vista, Va.



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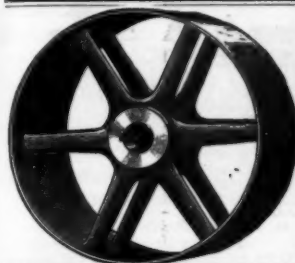
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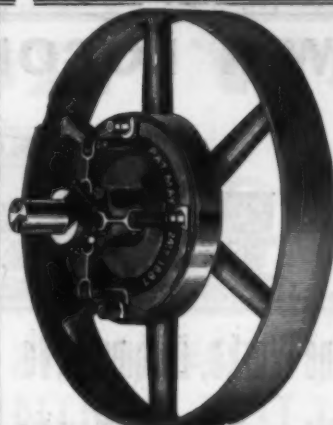
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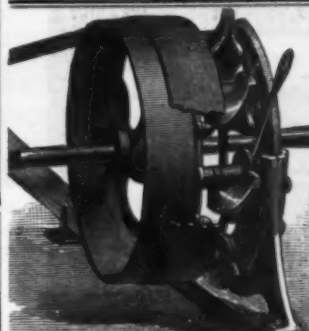
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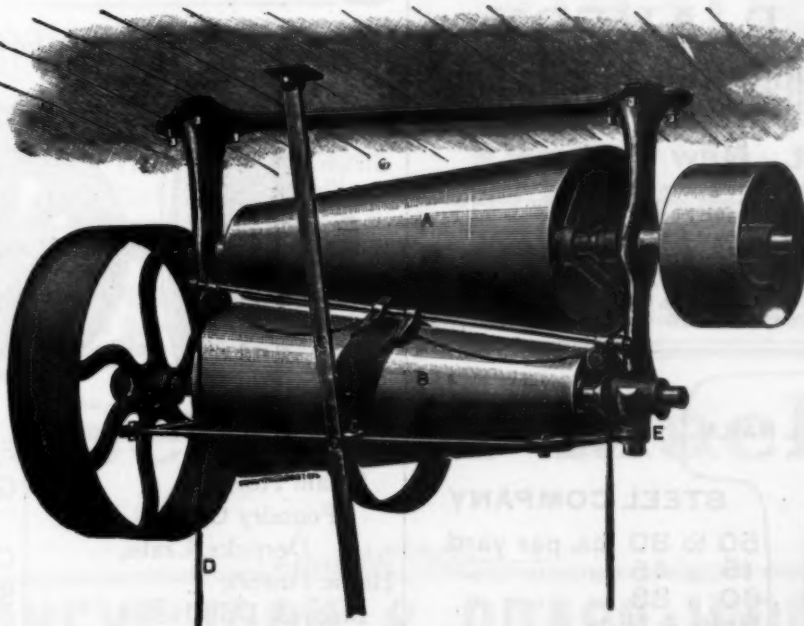
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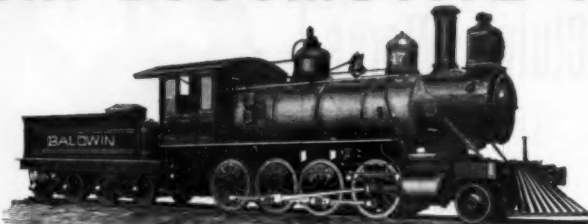
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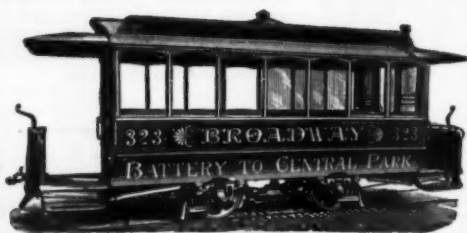
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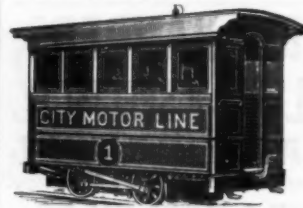
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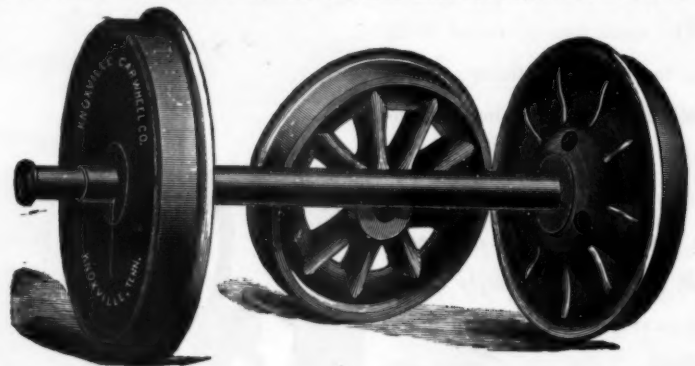
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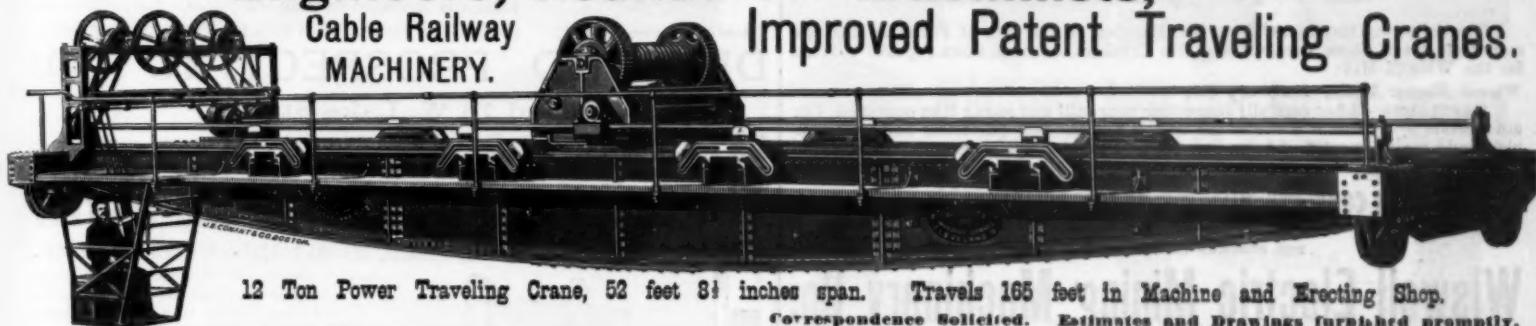
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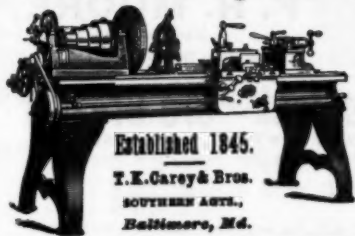
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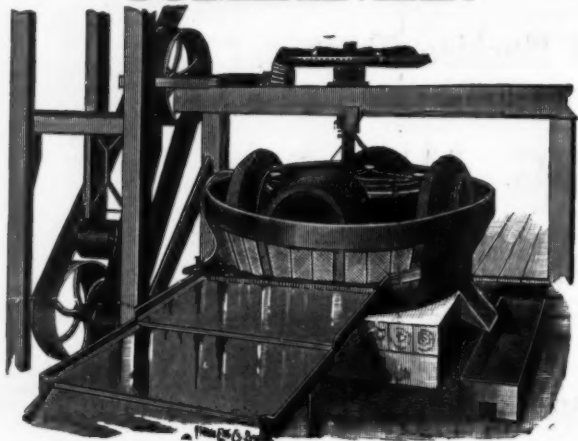
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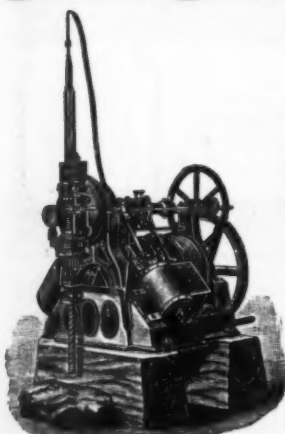
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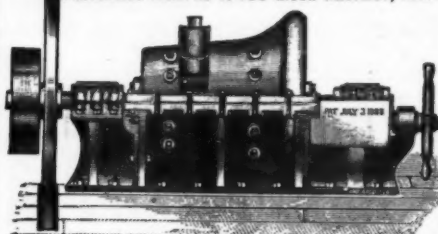
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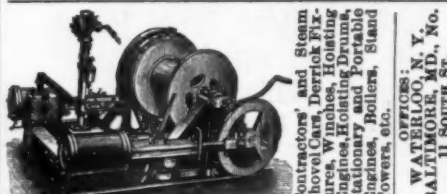
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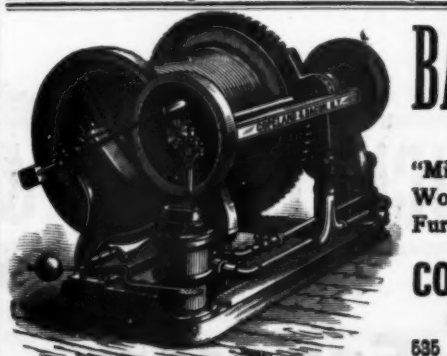
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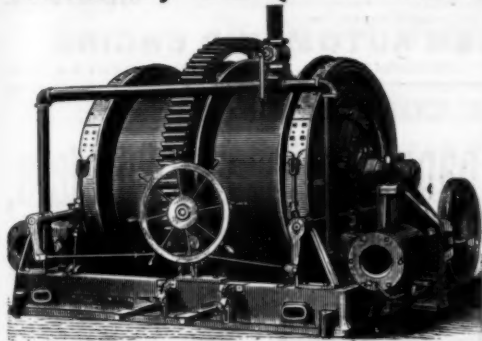


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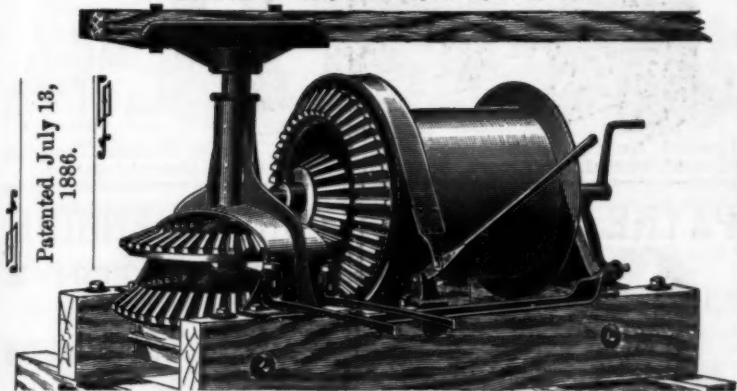
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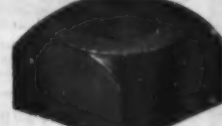
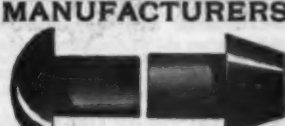
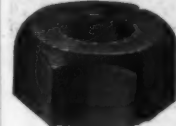
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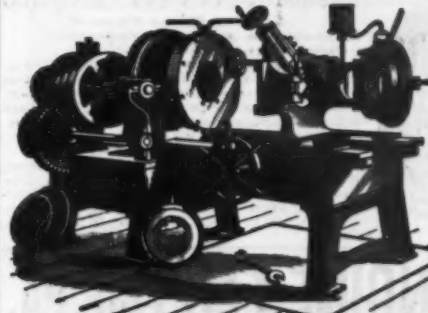
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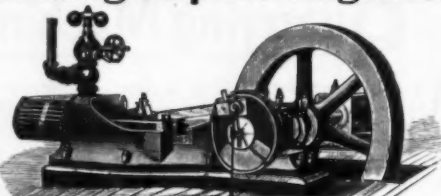
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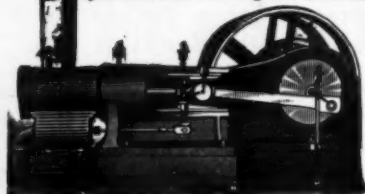
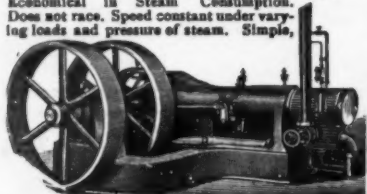
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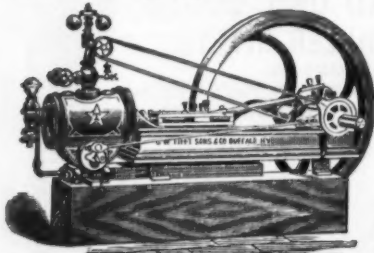
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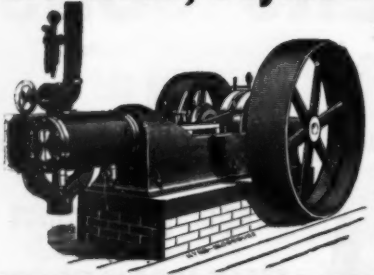
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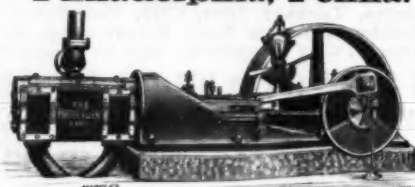
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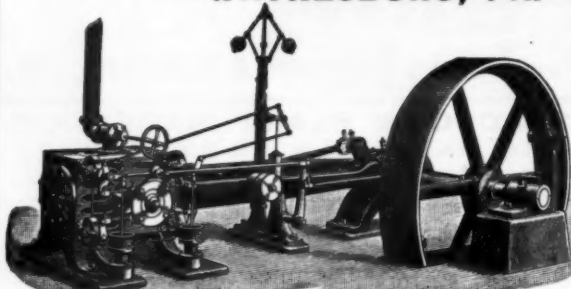
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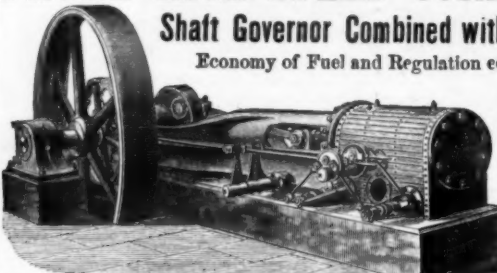
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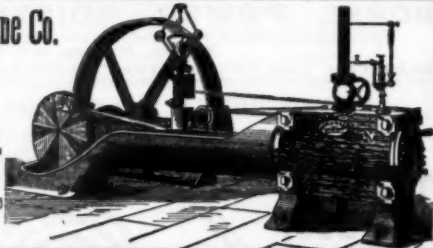
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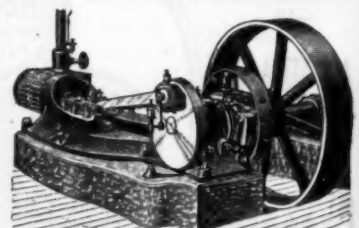
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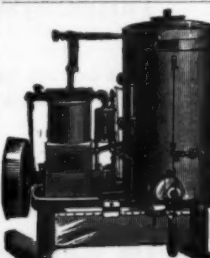
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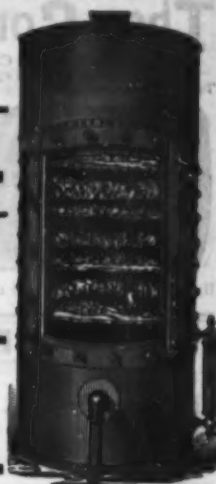
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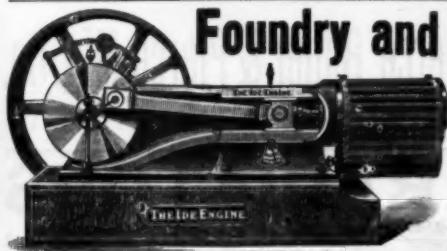
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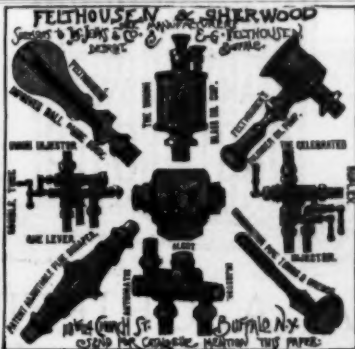
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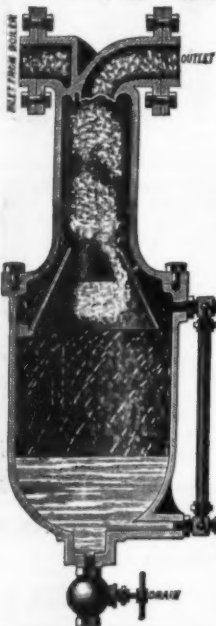
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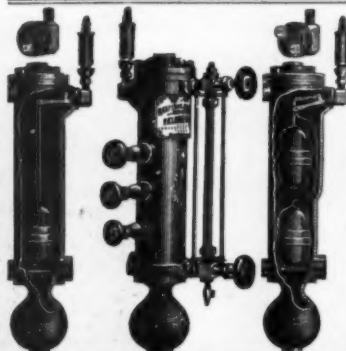
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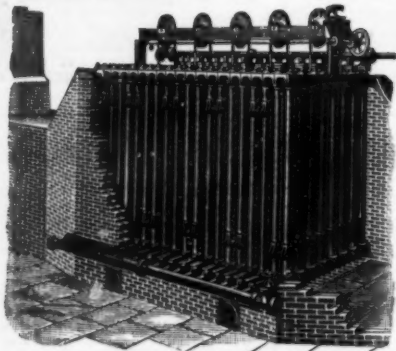
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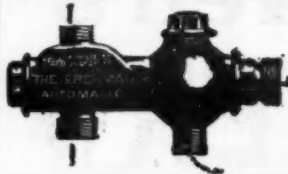
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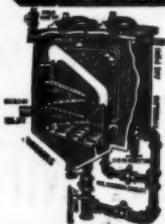
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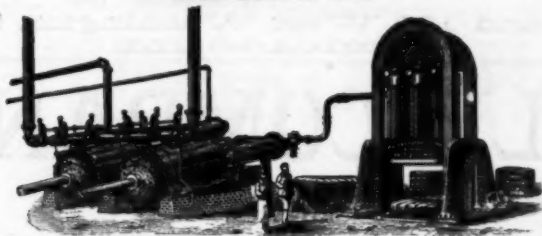
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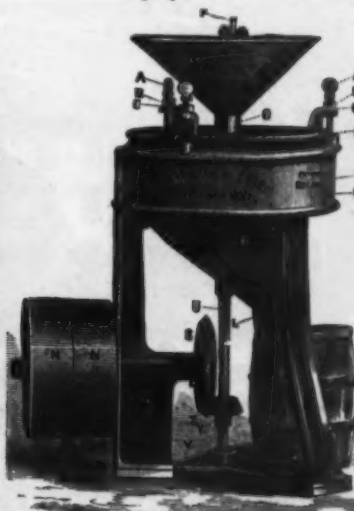
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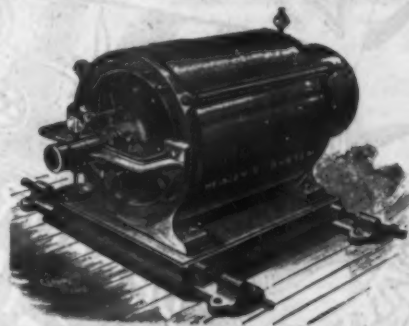
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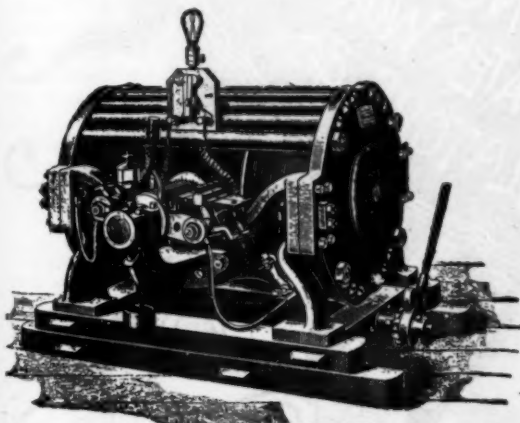
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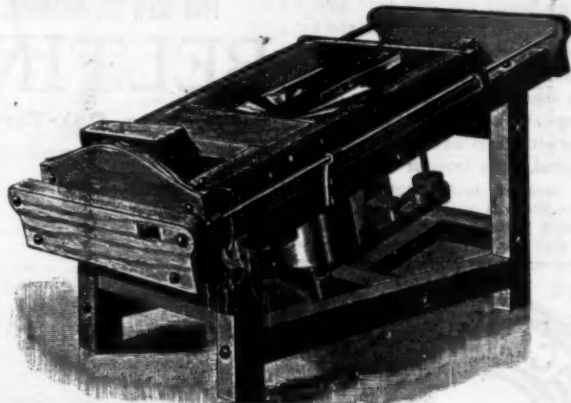
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block, enabling the operator to get his block of even thickness. It requires no mechanical skill to operate the machine, except to file and set the saw. The first cut from any block that has a flat surface is a perfect shingle. It will cut blocks 30 inches long by 18 inches wide. Shingles can be cut of any desired taper by moving the step that rests on the trip block either to the right or left, and of any required thickness by turning the adjusting screws that lift the springs that hold the table. This machine will cut 4,900 shingles in an hour from suitable blocks and it can make 80 shingles per minute from blocks 8 inches wide. These machines are built very strong and substantial and will stand heavy work. The saw-arbor is made of two-inch steel and runs in long babbitted boxes. The saw does not lie flat but on an incline. The carriage is moved up over the saw by a pinion running in a rack or gear until the saw passes through the bolt or block, when the pinion is automatically released and the carriage moves back by the force of gravity; when the pivoted dog is opened the bolt or block (b) drops onto the platform which is tilted by the ratchet-wheel, the pinion engages into the rack or gear and the carriage moves the block (b) against the saw. This machine can make 40 cuts per minute which, when cutting a 12-inch block, would give 120 shingles per minute. It is simple in construction and not liable to get out of repair and it can be run for years without any perceptible wear except to the saw. Address the makers for all further desired information.

Literary Notes.

A new serial story, by Edwin Lassetter Bynner, opens the Atlantic Monthly for May. It is called "The Begum's Daughter." The scene of the novel is laid in old New York about 1689, and some of the familiar Knickerbocker names appear in it. This is followed by a paper on "Temperance Legislation, its Uses and Limits," by Charles Worcester Clark. Mr. Fiske contributes one of his valuable historical papers on "Brandywine, Germantown and Saratoga." Mr. W. H. Bishop writes a sketch of "The Paris Exposition in Dishabille." He also describes the Eiffel tower, the great landmark of the exhibition. An amusing article on "The Philosophy and Poetry of Tears" is contributed by J. T. L. Preston; Mr. Frank Gaylord Cook writes about "The Lawyer in National Politics;" and reminis-

cences of famous "Trotting Horses" are given by H. C. Merwin. Houghton, Mifflin & Co., Boston, publishers.

WIDE AWAKE for May brings to a close Trowbridge's popular serial, "The Adventures of David Vane and David Crane," to give place to Charles R. Talbot's story of "Sybil Fair's Fairness;" it brings to a pause, too, Margaret Sidney's "Five Little Peppers Midway," to go along with them next month, however, in the fresh tale of "Five Little Peppers Further On." Mrs. G. M. Fernald Fre-

mont has a long story in this number, entitled "Besieged," a tale of the wild mining days of 1840 in California; a stirring, breathless tale of her own experiences. "Teddy" is a story by E. S. Thornton of two beautiful dogs, real dogs, known to many Boston young people. "Little Cy Downer's Ride" is a swinging civil-war ballad of a brave little chap, by Mrs. Clara Doty Bates, and many other good articles. Wide Awake is \$2.40 a year. D. Lothrop Company, publishers, Boston.

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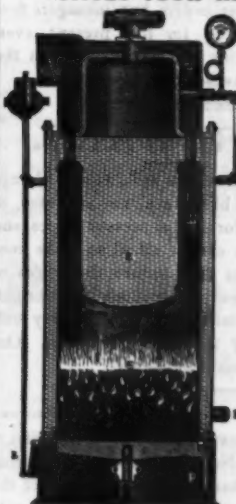
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THE MARKETS.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, May 1, 1889

Our advices from a half a dozen leading iron and steel centers during the past forty-eight hours indicate no general improvement in any department. The Amalgamated Association will shortly take action with reference to the contemplated shut-down for two months. The meeting of manufacturers and iron workers in the East will also be held this week to talk over the question of wages and work for the summer. The employers are anxious for a farther reduction, and intimate that unless it is consented to or unless business improves very materially that a restriction will become necessary. Very diverse views prevail concerning the probabilities of railway construction this year. It is entirely too soon anyhow to talk about what this year's output will be or what construction will be entered upon. Those who have railroad enterprises in hand do not know how much will be done. If circumstances permit they will push forward some time during the summer. It is probable that there will be a spurt. It is encouraging to know that there is so much work talked of and that so much work is waiting better conditions. The iron trade in this country has been treated to surprises periodically and we are all waiting for the next one.

There is really nothing new in the crude iron market. Advices from Alabama sources show that while production is increasing, consumption in Eastern markets is not maintaining itself up to the expected limits. For all that, there is a large amount of iron coming Northward and the consumption of Southern brands is steadily improving all over the West. Less favorable reports come from Boston and New York. A few large orders are likely to be placed this week or next for pipe iron, but there is only a little foundry selling. A furnace here and there is endeavoring to advance prices, but is not meeting with much success in picking up business. The most important event of the week was the reduction in the price of coal for furnace use, and also a reduction in tolls. The total reduction will benefit pig iron makers from thirty to forty cents per ton. If furnace labor could be reduced 10 per cent and mill labor that much, the Pennsylvania iron makers would, it is said, feel a little safer.

Advices from New York indicate that there is scarcely any activity in that market. Foreign material is dull. Imports for the week 500 tons of pig iron, 116 tons of bar iron, 689 tons of steel and iron rods, 1,865 tons of steel blooms and billets and 573 tons of steel bars, tires, etc. The market is an expectant one.

There is nothing new regarding copper. Every one waits the financial adjustments now going on in Paris and London. Newspaper paragraphs state that the Rothschilds lost \$15,000,000. There were no exports of copper matte last week. Since January 1st there have been 10,133,089 lbs. copper matte exported, against 24,113,014 lbs. for same time last year. Last week there were no exports of copper. So far this year 2,653,370 lbs., and for last year 18,698,076 lbs. The total tin shipments from sources of supply to European and American markets this year foot up 7700 tons, against 89 tons last year. On the other hand, the consumption in America so far this year has been 4,100 tons, against 2,800 tons last year.

A great deal of anxiety prevails among iron and steel makers and buyers as to the best course to pursue. Makers desire to avoid an accumulation, and buyers are a little apprehensive that something may arise to run prices up on them. Consumers naturally want to purchase when prices are at their lowest, and a good many inquiries have been made for both crude and finished iron, and few large orders have been placed at \$17.50 to \$18 for No. 1 Northern; for No.

2, \$16.25 to \$17; for grey forge, \$15 to \$15.50. A block or two of Spiegeleisen has been sold at \$27.50. Foreign ore is likely to be handled this season upon a very large scale, and negotiations are now going through for deliveries to be made during the fall. Plate iron quotations have declined very low, and some makers do not care to take orders at some prices buyers named last week. The lowest quotation that has been accepted is 1.90 cts. For bar iron the lowest quotation is 1.55 cts. For steel rails the lowest quotation admitted by steel rail makers is \$27. A few lots aggregating about 30,000 tons have been sold. A few large orders for plate and structural iron were placed last week, but the business is being done at such a low figure that there is scarcely any margin. Secretary Tracy will decide this week upon whether the Cramps shall have the contract for the new defense vessel or the San Francisco bidders, who are \$14,000 above the Cramps. The ship builders have a large amount of work in hand; more than at any time in the history of ship building in this country. There is great activity also along the lakes, and it is probable that a large amount of new work will be put under contract for river and lake service during the coming summer. Heavy ore contracts have been booked, and within the course of two or three weeks the large lake ore consumers will have their season's requirements about covered. Chicago and St. Louis markets are doing right well. There is an active demand for agricultural implements and machinery. A large amount is now being shipped Southward. The machine shops are very well fixed for the next ninety days. Locomotive builders complain of a backwardness of orders, but railway managers will not practice their severe economy very long. Car builders have been endeavoring to stimulate car orders, but managers feel like economizing for the present, even though the policy is admitted to be in the long run an unwise one.

HARDWARE.

Hardware continues dull, with no change in prices. Jobbers are not disposed to place orders for fall at present prices, and manufacturers cannot afford to make concessions unless they reduce the wages of their employees. The outlook is not bright, and the indications point to a very dull season during the summer months. Our quotations remain unchanged.

[Special correspondence MANUFACTURERS' RECORD.]
CHATTANOOGA, April 29, 1889.

Pig Iron.—Nothing has occurred during the week to change the general tenor of the market, and prices and demand remain about as usual. With the exception of the furnaces that are out for repairs, they are all blowing away as usual, and those that are making favorite brands that are well known to consumers are having no trouble nor difficulty in disposing of their output at remunerative prices. Transactions as a general thing are not of the same magnitude as they were some months ago, but there are more of them, which evidently shows that consumers are living more on the hand-to-mouth policy, although it would seem to be impossible for any one to make a mistake in the purchasing of large lots on the present condition of the market. It appears to be conceded by every one that pig iron cannot possibly go any lower than it is now; in fact, men who have money appear to be of the same opinion, for there are not instances wanting where some large round lots have been taken for which spot cash has been paid and the iron remaining in the furnace yard. Notwithstanding the low price at which pig iron is selling, there is no disposition manifested so far of any of the stacks blowing out. It is true that some of them are not making much money, but all are making some, and some of them are making

from \$1.50 to \$2.50 per ton on every ton they turn out, and from the fact that it appears to be impossible for iron to go lower, it appears to be a settled position with them to continue on until there is a revival of prices. With the exception of pig iron all business enterprise appears to be in a satisfactory condition and very prosperous. All the different manufacturers are running full time and many of them are adding materially to their plants; besides this, the location of new enterprises are of almost daily occurrence. Some Northern gentlemen are now here with a view to locating very extensive bolt and nut works, and as they are men of considerable means and large experience, they have been offered an association of a number of our local enterprising citizens, who will interest themselves with them and contribute some of the capital. The interest being manifested in locating manufacturing centers through the South is still unabated, and not a day passes but what large numbers of strangers visit our cities, who are here for

the purpose of looking around for favorable locations.

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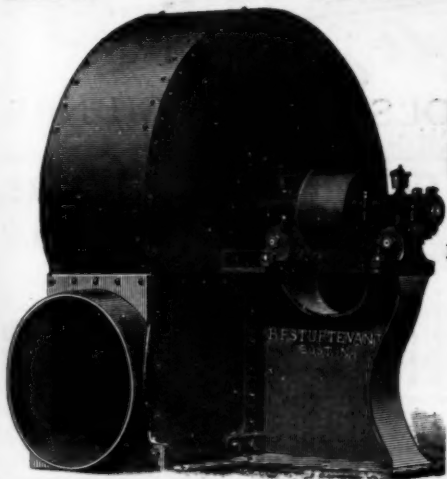
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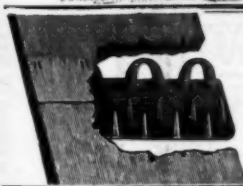


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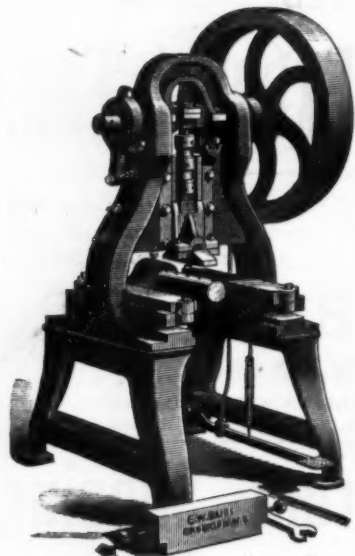
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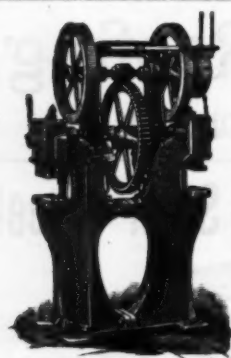
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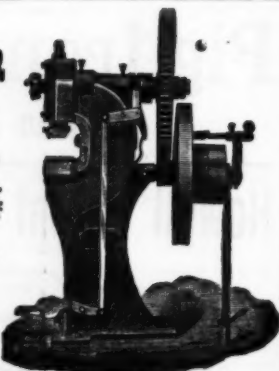
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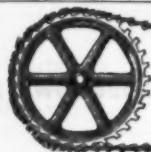
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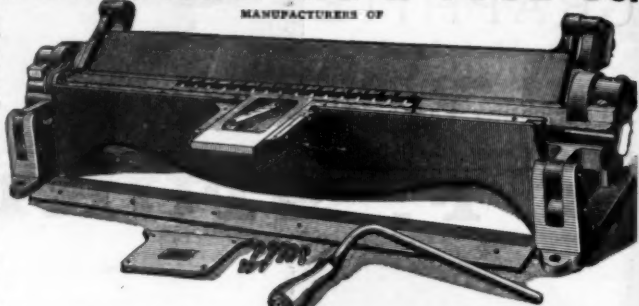
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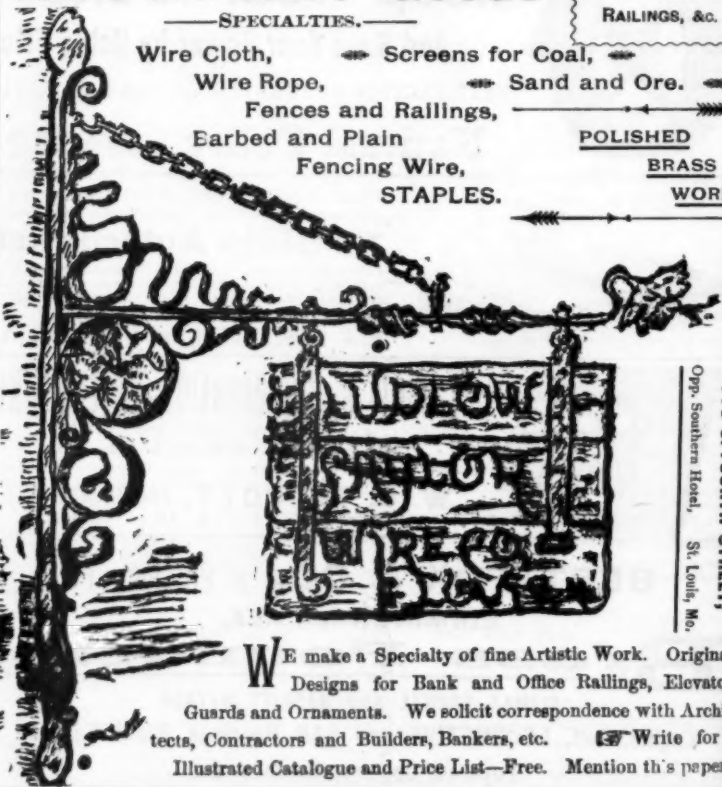
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ADVERTISING.

Casa Valley Mfg. Co.	extra, 60x20
Douglas Mfg. Co.	No. 1, 60x20
Cook's Douglas Mfg. Co.	dis 25
Patent Solid Head...	dis 25
Russell Jennings' Auger, Dowell, Machine...	dis 25
Dowell and Hand Rail Bitts...	dis 25
Ives' "Jennings" Bitts...	dis 25
Expansive Bitts, Clark's small, 2 1/2; large,	dis 25

Expansive Bitts, Ives'...	dis 25
Expansive Bitts, Ives'...	dis 25
Hollow Augers, Ives'...	dis 25
Hollow Augers, Douglas'...	dis 25
Hol. Aug., Bonney's Adjust. 1/2 doz 2 1/2...	dis 25
Hol. Aug., Stearns' Adjust. 1/2 doz 2 1/2...	dis 25
Hol. Aug., Ives' Expansive, each 1/2 doz...	dis 25
Hol. Aug., Universal Expansive, each 1/2 doz...	dis 25
Wood's...	dis 25
Gimlet Bitts...	dis 25
Gimlet Bitts, Diamond...	dis 25
Double Cut Gimlet Bitts, Shephardson's...	dis 25
Double Cut Gimlet Bitts, Douglas'...	dis 25
Double Cut Gimlet Bitts, Ives'...	dis 25
Morse's Bit Stock Drill...	dis 25
L'Honnadieu's Ship Augers...	dis 25

AWL HATS.

Sewing Brass Ferrule...	dis 25
Patent Sewing, Short...	dis 25
Patent Sewing, Long...	dis 25
Patent Peg, Plain Top...	dis 25
Patent Peg, Leather Top...	dis 25

AWLS, BRAD NUTS, &c.

Awls, Sewing, Common...	dis 25
Awls, Shouldered Peg...	dis 25
Awls, Patent Peg...	dis 25
Awls, Shouldered Brad...	dis 25
Awls, Handled Brad...	dis 25
Brad Sets, Alken's...	dis 25
Brad Sets, No. 48, 1/2 doz...	dis 25
Brad Sets, Stanley's Exc. No. 1, 1/2 doz...	dis 25
Brad Sets, Stanley's Exc. No. 2, 1/2 doz...	dis 25
Brad Sets, Stanley's Exc. No. 3, 1/2 doz...	dis 25

AXES.

Collins & Co.	dis 25
Lippincott or Mann's...	dis 25
Hagle Bit, 1/2 to 3/4 and under...	dis 25
Hagle Bit, 3/4 to 1 and over...	dis 25
Hagle Bit, beveled...	dis 25
Double Bit, 1/2 to 3/4 and under...	dis 25
Double Bit, 3/4 to 1 and over...	dis 25
Double Bit, beveled...	dis 25
Second quality Axes...	dis 25

AXLES.

Sheldon & Co., iron...	dis 25
" " steel...	dis 25
AXLE GRASS—FRASER...	dis 25

BALANCES.

Spring Balances...	dis 25
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BELLS.

Hand, Light Brass...	dis 25
Hand, White Metal...	dis 25
Hand, Silver Chime...	dis 25
Hand, Globe (Cone's Patent)...	dis 25
Hand, Globe (Cone's Patent)...	dis 25
Gong, Yankoo...	dis 25
Gong, Barton's...	dis 25
Leon Reading...	dis 25
Pull, Brook's...	dis 25
Crank, Taylor's...	dis 25
Lever, Sargent's...	dis 25
Blowfield...	dis 25
Lever, R. & M. Co's...	dis 25
Cell...	dis 25
Cow, Common Wrought...	dis 25
Cow, Western, Sargent's List...	dis 25
Cow, Kentucky, Sargent's List...	dis 25
Cow, Moore's or Dodge's, Genuine Ky., new list:	dis 25
No. 1 1/2 x 3 1/2 x 5 1/2 Hog...	dis 25
No. 2 1/2 x 3 1/2 x 5 1/2 Hog...	dis 25
Cow, Texas "Star"...	dis 25

BELLOWS.

Blacksmith's Common...	dis 25
Molder's...	dis 25
Hand Bellows...	dis 25

BLIND FASTENERS.

Francis...	dis 25
Macrell's...	dis 25
Van Sand's Screw Pattern, 1/2 doz...	dis 25
Van Sand's Old Pattern...	dis 25
Merriman's...	dis 25
Zimmerman's, 10 1/2 in...	dis 25
Zimmerman's, 9 in...	dis 25

BLIND STAPLES.

Barbed, 1/2 in. and larger...	dis 25
Barbed, 3/4 in. and larger...	dis 25

BLOCKS.

Penfield Block...	dis 25
Bagnall & Lund...	dis 25

BOLTS.

Cast Iron Barrel Shutter, 2c...	dis 25
Cast Iron Chain (Sargent's list)...	dis 25
Wrought Barrel...	dis 25
Wrought Square...	dis 25
Wrt. Shutter, all Iron, Stanley's list...	dis 25
Wrt. Shutter, Brass Knob, Stanley's list...	dis 25
Wrought Shutter, Sargent's list...	dis 25
Wrought Sunk Flush, Sargent's...	dis 25
Wrought Sunk Flush, Stanley's...	dis 25
Wrought E. K. Flush, Stanley's...	dis 25
Carriage and Tire, Common, new list...	dis 25
Carriage and Tire, Philadelphia Pattern...	dis 25
Carriage Bolts, Clarke's...	dis 25
Norway...	dis 25
R. & W. Carriage (old list)...	dis 25
Tire, "Bay State"...	dis 25
Engle Philadelphia Tire Bolt...	dis 25
Five...	dis 25
Machine...	dis 25
Bit Ends and Lag Screws...	dis 25

BONNETS.

O. J. Backus...	dis 25
Burke's...	dis 25
Spotted's Patent...	dis 25
Ives' Patent Bonnet...	dis 25
Common Ball (American)...	dis 25
Anderson's...	dis 25

BONNET MACHINES.

Best & Clark upright, 2 1/2 regular...	dis 25
" " 1 1/2 regular...	dis 25
" " 1 1/2 regular...	dis 25

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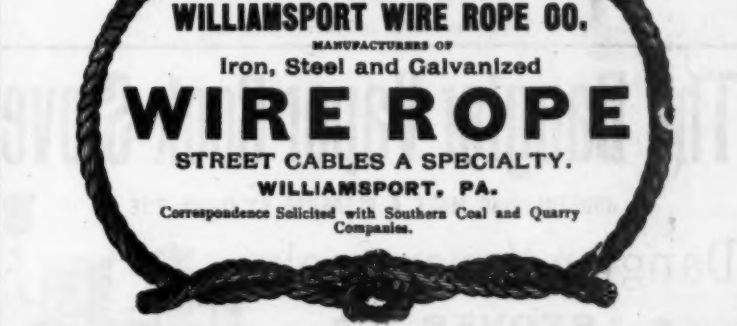
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Recommends itself to dealers as an article whose merits will be readily appreciated by their customers. It is positively



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is compact, simple and durable. It is easily applied and is superior to all other methods for Balancing Window Sash. Adapted to old or new windows, does not require box frames or pockets, and does not get out of order. The Caldwell Balance for Mullion Windows is the best yet invented. N. B.—In ordering sample set give exact weight and height of each sash. Send for catalogue to
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Shall, heavy..... 1.25 1.25..... 1.25

Wet Hat..... 1.25 1.25..... 1.25

Union Hat Co..... 1.25 1.25..... 1.25
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Cast Brass, Loose Joint..... 1.25 1.25..... 1.25
Fast Joint, Narrow..... 1.25 1.25..... 1.25
Fast Joint, Broad..... 1.25 1.25..... 1.25
Loose Joint..... 1.25 1.25..... 1.25
Loose Joint, Joggled..... 1.25 1.25..... 1.25
Fast Joint, Joggled..... 1.25 1.25..... 1.25
Fast Joint, Joggled, with Acorn..... 1.25 1.25..... 1.25
Mayer's Hinge..... 1.25 1.25..... 1.25
Loose Pin, no Acorn..... 1.25 1.25..... 1.25
Loose Pin, Acorn..... 1.25 1.25..... 1.25
Loose Pin, Acorn, Joggled..... 1.25 1.25..... 1.25
Loose Pin, Acorn, Joggled, Fluted..... 1.25 1.25..... 1.25
Tip..... 1.25 1.25..... 1.25

Fast Joint, Narrow..... 1.25 1.25..... 1.25
Fast Joint, L. L. Narrow..... 1.25 1.25..... 1.25
Fast Joint, Broad..... 1.25 1.25..... 1.25
Loose Joint, Broad..... 1.25 1.25..... 1.25
Table Butts, Back Flaps, &c..... 1.25 1.25..... 1.25
Inside Hinge, Regular..... 1.25 1.25..... 1.25
Inside Hinge, Light..... 1.25 1.25..... 1.25
Loose Pin, Wrt..... 1.25 1.25..... 1.25
Loose Pin, Light..... 1.25 1.25..... 1.25
Spring Hinge..... 1.25 1.25..... 1.25
Door's Spring and Black Butts..... 1.25 1.25..... 1.25
Hart Manufacturing Co..... 1.25 1.25..... 1.25
American Spring Hinge Co's..... 1.25 1.25..... 1.25
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Sargent's..... 1.25 1.25..... 1.25
Mocking..... 1.25 1.25..... 1.25

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New Haven....gsc nbc nbc nyc nyc...dis gntw \$
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Horse Shoes.....\$4.10 1/2 kg.
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108 quart, \$84.50; 110 quart, \$86.00; 112 quart, \$87.50; 114 quart, \$89.00; 116 quart, \$90.50; 118 quart, \$92.00; 120 quart, \$93.50; 122 quart, \$95.00; 124 quart, \$96.50; 126 quart, \$98.00; 128 quart, \$99.50; 130 quart, \$101.00; 132 quart, \$102.50; 134 quart, \$104.00; 136 quart, \$105.50; 138 quart, \$107.00; 140 quart, \$108.50; 142 quart, \$110.00; 144 quart, \$111.50; 146 quart, \$113.00; 148 quart, \$114.50; 150 quart, \$116.00; 152 quart, \$117.50; 154 quart, \$119.00; 156 quart, \$120.50; 158 quart, \$122.00; 160 quart, \$123.50; 162 quart, \$125.00; 164 quart, \$126.50; 166 quart, \$128.00; 168 quart, \$129.50; 170 quart, \$131.00; 172 quart, \$132.50; 174 quart, \$134.00; 176 quart, \$135.50; 178 quart, \$137.00; 180 quart, \$138.50; 182 quart, \$140.00; 184 quart, \$141.50; 186 quart, \$143.00; 188 quart, \$144.50; 190 quart, \$146.00; 192 quart, \$147.50; 194 quart, \$149.00; 196 quart, \$150.50; 198 quart, \$152.00; 200 quart, \$153.50; 202 quart, \$155.00; 204 quart, \$156.50; 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398 quart, \$302.00; 400 quart, \$303.50; 402 quart, \$305.00; 404 quart, \$306.50; 406 quart, \$308.00; 408 quart, \$309.50; 410 quart, \$311.00; 412 quart, \$312.50; 414 quart, \$314.00; 416 quart, \$315.50; 418 quart, \$317.00; 420 quart, \$318.50; 422 quart, \$320.00; 424 quart, \$321.50; 426 quart, \$323.00; 428 quart, \$324.50; 430 quart, \$326.00; 432 quart, \$327.50; 434 quart, \$329.00; 436 quart, \$330.50; 438 quart, \$332.00; 440 quart, \$333.50; 442 quart, \$335.00; 444 quart, \$336.50; 446 quart, \$338.00; 448 quart, \$339.50; 450 quart, \$341.00; 452 quart, \$342.50; 454 quart, \$344.00; 456 quart, \$345.50; 458 quart, \$347.00; 460 quart, \$348.50; 462 quart, \$350.00; 464 quart, \$351.50; 466 quart, \$353.00; 468 quart, \$354.50; 470 quart, \$356.00; 472 quart, \$357.50; 474 quart, \$359.00; 476 quart, \$360.50; 478 quart, \$362.00; 480 quart, \$363.50; 482 quart, \$365.00; 484 quart, \$366.50; 486 quart, \$368.00; 488 quart, \$369.50; 490 quart, \$371.00; 492 quart, \$372.50; 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782 quart, \$590.00; 784 quart, \$591.50; 786 quart, \$593.00; 788 quart, \$594.50; 790 quart, \$596.00; 792 quart, \$597.50; 794 quart, \$599.00; 796 quart, \$600.50; 798 quart, \$602.00; 800 quart, \$603.50; 802 quart, \$605.00; 804 quart, \$606.50; 806 quart, \$608.00; 808 quart, \$609.50; 810 quart, \$611.00; 812 quart, \$612.50; 814 quart, \$614.00; 816 quart, \$615.50; 818 quart, \$617.00; 820 quart, \$618.50; 822 quart, \$620.00; 824 quart, \$621.50; 826 quart, \$623.00; 828 quart, \$624.50; 830 quart, \$626.00; 832 quart, \$627.50; 834 quart, \$629.00; 836 quart, \$630.50; 838 quart, \$632.00; 840 quart, \$633.50; 842 quart, \$635.00; 844 quart, \$636.50; 846 quart, \$638.00; 848 quart, \$639.50; 850 quart, \$641.00; 852 quart, \$642.50; 854 quart, \$644.00; 856 quart, \$645.50; 858 quart, \$647.00; 860 quart, \$648.50; 862 quart, \$650.00; 864 quart, \$651.50; 866 quart, \$653.00; 868 quart, \$654.50; 870 quart, \$656.00; 872 quart, \$657.50; 874 quart, \$659.00; 876 quart, \$660.50; 878 quart, \$662.00; 880 quart, \$663.50; 882 quart, \$665.00; 884 quart, \$666.50; 886 quart, \$668.00; 888 quart, \$669.50; 890 quart, \$671.00; 892 quart, \$672.50; 894 quart, \$674.00; 896 quart, \$675.50; 898 quart, \$677.00; 900 quart, \$678.50; 902 quart, \$680.00; 904 quart, \$681.50; 906 quart, \$683.00; 908 quart, \$684.50; 910 quart, \$686.00; 912 quart, \$687.50; 914 quart, \$689.00; 916 quart, \$690.50; 918 quart, \$692.00; 920 quart, \$693.50; 922 quart, \$695.00; 924 quart, \$696.50; 926 quart, \$698.00; 928 quart, \$699.50; 930 quart, \$701.00; 932 quart, \$702.50; 934 quart, \$704.00; 936 quart, \$705.50; 938 quart, \$707.00; 940 quart, \$708.50; 942 quart, \$710.00; 944 quart, \$711.50; 946 quart, \$713.00; 948 quart, \$714.50; 950 quart, \$716.00; 952 quart, \$717.50; 954 quart, \$719.00; 956 quart, \$720.50; 958 quart, \$722.00; 960 quart, \$723.50; 962 quart, \$725.00; 964 quart, \$726.50; 966 quart, \$728.00; 968 quart, \$729.50; 970 quart, \$731.00; 972 quart, \$732.50; 974 quart, \$734.00; 976 quart, \$735.50; 978 quart, \$737.00; 980 quart, \$738.50; 982 quart, \$740.00; 984 quart, \$741.50; 986 quart, \$743.00; 988 quart, \$744.50; 990 quart, \$746.00; 992 quart, \$747.50; 994 quart, \$749.00; 996 quart, \$750.50; 998 quart, \$752.00; 1000 quart, \$753.50; 1002 quart, \$755.00; 1004 quart, \$756.50; 1006 quart, \$758.00; 1008 quart, \$759.50; 1010 quart, \$761.00; 1012 quart, \$762.50; 1014 quart, \$764.00; 1016 quart, \$765.50; 1018 quart, \$767.00; 1020 quart, \$768.50; 1022 quart, \$770.00; 1024 quart, \$771.50; 1026 quart, \$773.00; 1028 quart, \$774.50; 1030 quart, \$776.00; 1032 quart, \$777.50; 1034 quart, \$779.00; 1036 quart, \$780.50; 1038 quart, \$782.00; 1040 quart, \$783.50; 1042 quart, \$785.00; 1044 quart, \$786.50; 1046 quart, \$788.00; 1048 quart, \$789.50; 1050 quart, \$791.00; 1052 quart, \$792.50; 1054 quart, \$794.00; 1056 quart, \$795.50; 1058 quart, \$797.00; 1060 quart, \$798.50; 1062 quart, \$800.00; 1064 quart, \$801.50; 1066 quart, \$803.00; 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1252 quart, \$942.50; 1254 quart, \$944.00; 1256 quart, \$945.50; 1258 quart, \$947.00; 1260 quart, \$948.50; 1262 quart, \$950.00; 1264 quart, \$951.50; 1266 quart, \$953.00; 1268 quart, \$954.50; 1270 quart, \$956.00; 1272 quart, \$957.50; 1274 quart, \$959.00; 1276 quart, \$960.50; 1278 quart, \$962.00; 1280 quart, \$963.50; 1282 quart, \$965.00; 1284 quart, \$966.50; 1286 quart, \$968.00; 1288 quart, \$969.50; 1290 quart, \$971.00; 1292 quart, \$972.50; 1294 quart, \$974.00; 1296 quart, \$975.50; 1298 quart, \$977.00; 1300 quart, \$978.50; 1302 quart, \$980.00; 1304 quart, \$981.50; 1306 quart, \$983.00; 1308 quart, \$984.50; 1310 quart, \$986.00; 1312 quart, \$987.50; 1314 quart, \$989.00; 1316 quart, \$990.50; 1318 quart, \$992.00; 1320 quart, \$993.50; 1322 quart, \$995.00; 1324 quart, \$996.50; 1326 quart, \$998.00; 1328 quart, \$999.50; 1330 quart, \$1001.00; 1332 quart, \$1002.50; 1334 quart, \$1004.00; 1336 quart, \$1005.50; 1338 quart, \$1007.00; 1340 quart, \$1008.50; 1342 quart, \$1010.00; 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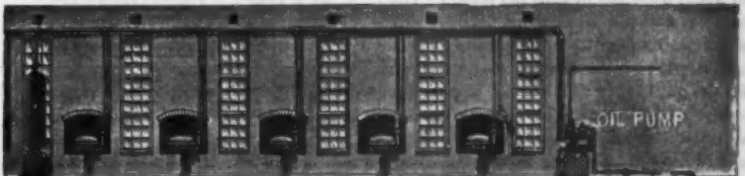
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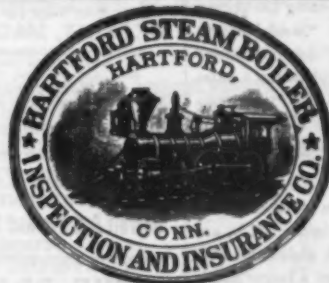


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[Special correspondence MANUFACTURERS' RECORD.]
KISSIMMEE, FLA., April 26, 1889.

The sugar crop of 1888-'89 on the St. Cloud plantation near this town amounted to 560,000 pounds dry centrifugal sugars and about 85,000 gallons molasses. The company were compelled to leave 115 acres of cane in the field untouched, being unfit to grind, owing to the effects of high water and an early freeze, and owing to the acidity in upper portion of cane caused by the freeze. The cane which they did cut and use was cut half in two, the bad portion being left in the field, entailing heavy loss in tonnage and sugar. The same crop under ordinary circumstances with matured cane would have yielded not less than 1,500,000 pounds sugar. The immaturity of the cane was caused by high water from heavy rains, which kept the soil damp and the cane growing, and the freeze consequently found the cane tender and watery and nipped it in the bud. The quantity of molasses made (owing to the immaturity of the cane, &c.) was about three times too great for quantity of sugar turned out. The fields, before they were invaded by the two elements, water and ice, were as pleasing a sight as any cane planter could desire to see, and 1,500,000 pounds of sugar would not have been considered a remarkable yield for such cane.

The machinery throughout the sugar house worked splendidly and the company are perfectly satisfied with its operations. They gave it a thorough trial and found that it could easily handle 500 tons of cane per day (24 hours), which means from 75,000 to 80,000 pounds dry sugar per day or about 6,000,000 pounds per season. The bagasse furnace worked admirably, and when they were running regularly night and day it furnished all the steam needed for the entire factory with the bagasse (or crushed cane) alone. This item caused a wonderful saving in their fuel bill, which would have amounted to thousands of dollars had wood been used.

Further improvements are contemplated this year. The acreage of cane has been increased by about 75 acres, making a total of about 500 acres in cane now, exclusive of roads and ditches.

The crop prospects for this year are good and the cane growing well. Taking it as a whole, I think the outlook is good and that South Florida has a wonderful destiny before it.

ICE CREAM FREEZERS, ETC.—The White Mountain Freezer Co., Nashua, N. H., issue a small but complete descriptive catalogue of their goods for freezing ice cream, fruits, etc., including their "Sands" patent triple motion" and the new "Arctic" freezers. They mail on application a valuable collection of recipes for the compounding of frozen dainties. They likewise publish a really artistic lithograph by way of a supplement.

It may be of interest to note that the Maryland Tack Co., Baltimore, Md., are meeting with large success under the new organization. They now have a larger plant, modern and extended facilities, additional machinery already in and arriving, and improved methods of manufacture. The tacks and small nails made by this company are, it is claimed, "free from dirt and sliver, true to sample throughout all varieties of stock, and are cut from the highest grade metal with a style and finish that save half the time in selling them." Write the Maryland Tack Co., Baltimore, Md., for a circular and price-list.

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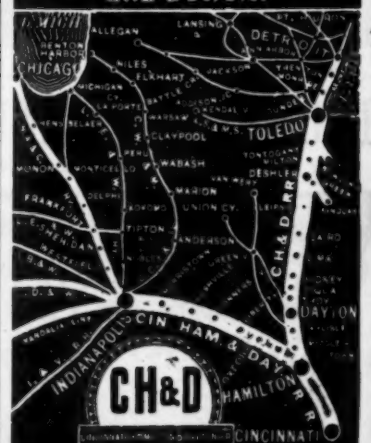
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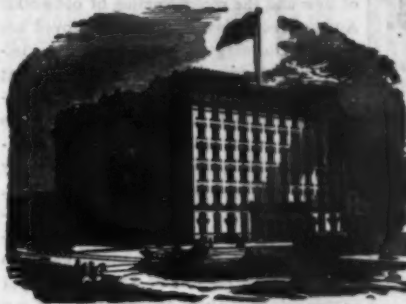
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THE Sterlingworth Inn is the name of a beautiful and grand new hotel at Lakewood on Lake Chataqua, Western New York, which, in connection with the New Kent House, will be turned open to the public some time in June. Lake Chataqua is one of the most popular summer resorts in the country, and is becoming a favorite rendezvous for Southern people. It is reached from the South or East direct by the Erie Railway. For descriptive pamphlets of the place and excursion rates address W. C. Rinearson, assistant general passenger agent, Cleveland, O.

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THE NEW AMERICAN TURBINE.—Stout, Mills & Temple, Dayton, O., manufacturers of the New American turbine, and of flour, paper and pulp mill machinery, publish an interesting catalogue descriptive of their turbine and other mill wheels, etc. The book is something more than a catalogue. It is, in fact, quite a storehouse of mathematical and mechanical information required in the utilization of water-powers. It deals with water-powers, wheels, spouting velocities of water, weirs, weights of materials, and a variety of subjects in which mill builders are interested. The information furnished is the best attainable, and will be found of service to all having anything to do with water mills. The illustrations in the book cover the American turbine and the other specialties of the company. The catalogue contains a long list of the company's patrons throughout the United States, Canada, Mexico, Japan, Australia, New Zealand and various countries in Europe.

CHEAP GAS FOR LIGHT AND FUEL.—The Illuminating & Fuel Gas Co., whose principal office is at 920-925 Drexel Building, Philadelphia, are the proprietors of the Brooks process for the manufacture of gas from crude petroleum. We have already referred to the process, which is claimed to be the most economical and profitable in use, as it is simple in details and permits of a low price for the product. The company are receiving many orders for the erection

of new and the reconstruction of old works. Among recent works to be improved are those at Downingtown, Pa., where large improvements are in progress. The great merit of the Brooks process is that it furnishes cheap fuel, which shows decidedly to advantage in the matter of household cooking in summer. The company will shortly reconstruct the works at Bordentown, N. J. The company secured the contract for lighting the town in competition with three electric-light companies. The street gas is to be furnished at the rate of \$15 per lamp per annum, which is about as low a figure as can be expected for gas light. Its ready adaption to both lighting, cooking and heating purposes commends the Brooks oil gas to all who appreciate the meaning of "value received."

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Newburyport & Amesbury Horse Railway Co., Newburyport, Mass. This line is about six miles in length and will operate two cars. It is made up almost entirely of curves and grades, the maximum of which is 10 per cent. The cars will be operated by a current from the Newburyport Electric Light Co., Newburyport, Mass., and also the Amesbury Electric Light Co., Amesbury, Mass.

The Newton Circuit Line, Newton, Mass. This line will operate 10 cars, and is eight miles in length; maximum gradient of five per cent. It will run from Newton to Watertown on the West End track, and on new track from Watertown to West Newton and Newtonville.

The Plymouth & Kingston Railway Co., Plymouth, Mass. This line is four miles in length and will operate three cars. The maximum gradient is six per cent. The line will run from Chiltonville through Plymouth to Kingston. On nearly all of the line the bracket method will be used. The track is about laid.

The Quincy Street Railway, Quincy, Mass. This line will operate four cars, and is five miles in length. It extends from Quincy through Wollaston Heights and Atlantic to the Neponset river. The bracket method of overhead construction will be used.

The company has also received orders for new cars from the Wheeling Railway Co., Wheeling, W. Va.; West End Street Railway Co., Boston, Mass.; Topeka Rapid Transit Co., Topeka, Kan.; Omaha & Council Bluffs Railway & Bridge Co., Omaha, Neb.; Lynn & Boston Street Railway Co., Lynn, Mass.

The company has also constructed a track of about one mile for the Hillside Coal Co. at Scranton, Pa., on which a 40 horse power mining locomotive is used. This is used for carrying coal, and is capable of hauling about 20 cars loaded with one ton each.

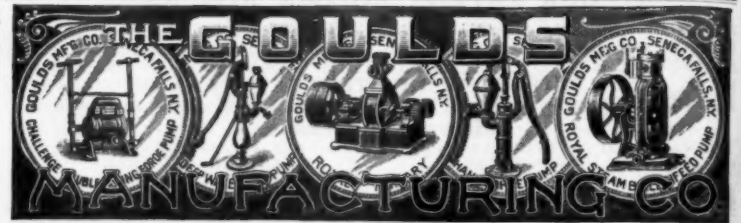
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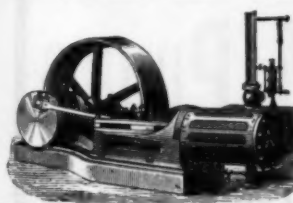


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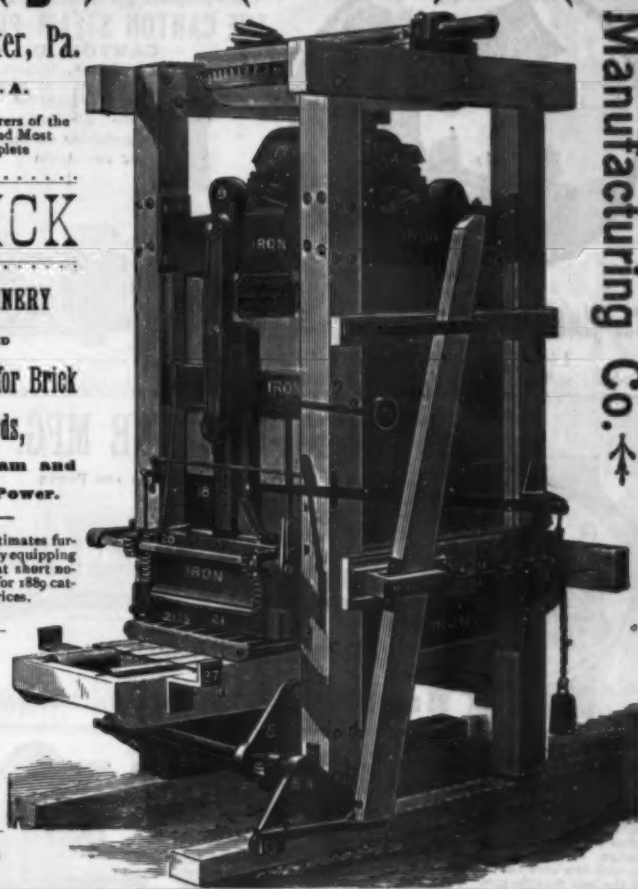
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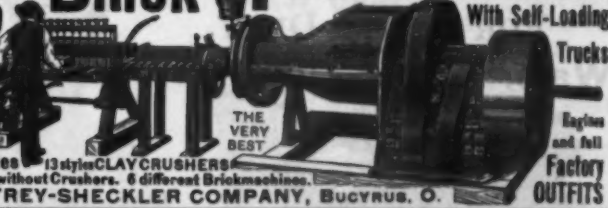
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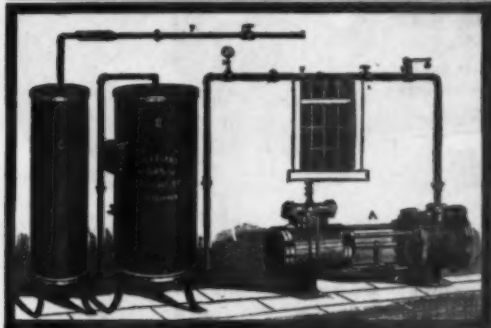
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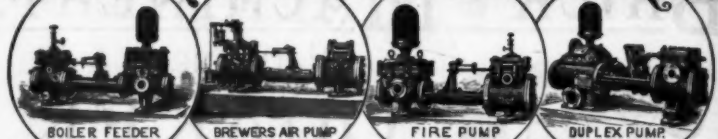
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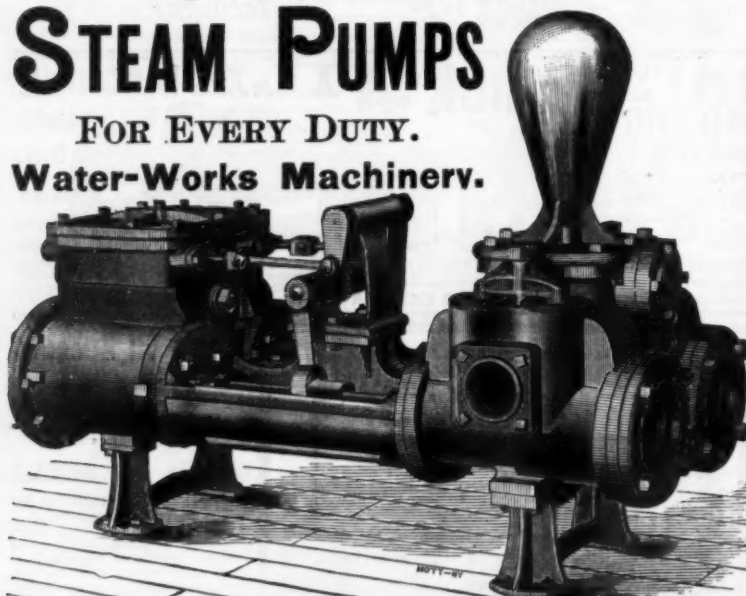
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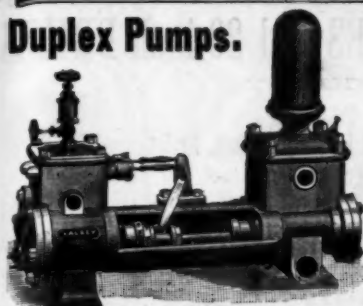
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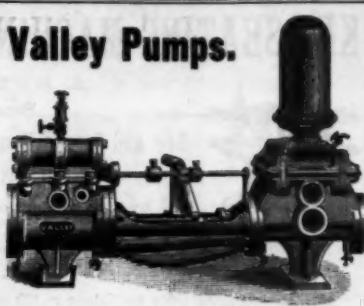
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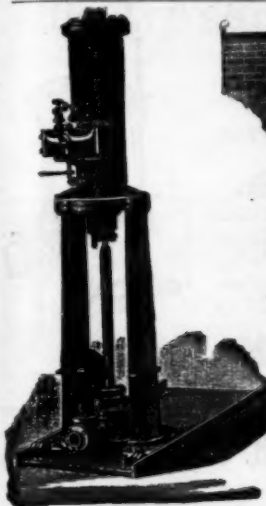
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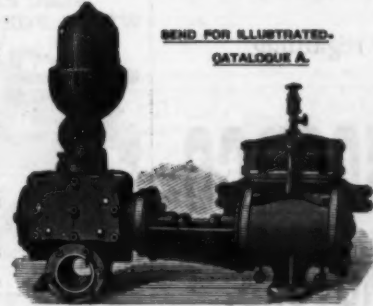
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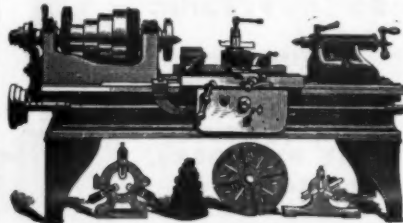
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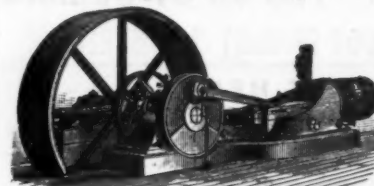
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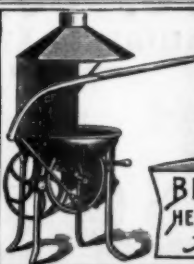
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